



Roto Patio Inowa

Intelligent hardware for tightly sealed sliding systems

Contact

Roto Frank
Fenster- und Türtechnologie GmbH
Wilhelm-Frank-Platz 1
70771 Leinfelden-Echterdingen
Germany
Phone +49 711 7598 0
Fax +49 711 7598 253
info@roto-frank.com
www.roto-frank.com



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1 General information

1.1 Version history

Ver- sion	Date	Changes
v0	16/11/2015	
v1	11/12/2015	
v2	03/03/2016	
v3	10/12/2017	General information, Security, Maintenance, Transport and Disposal chapters added. Installation of frame components, end stop, operator track stop and packer added. Jigs changed. Centre closers changed. Hardware overviews and parts lists changed.
v4	22/10/2018	Brief instructions added → <i>from page 167</i> . Notes on final assembly added → <i>from page 242</i> . Routing pattern for timber mullion striker removed. Incorrect material no. amended. Installation of roller units, control unit and centre closers; assignment of drilling jig to diagram amended. Installation of diagram C components Frame component positions changed → <i>from page 213</i> .
v5	13/06/2019	Diagram C / C' centre lock component, vertical, on the mullion side: combinations added. Diagram C instruction sticker added. Incorrect material no. amended. Dimensions for installing components in the mullion amended. Pin for anti-pushback function amended. Installation dimensions for operator track stopper amended. Diagram C installation drawings amended.
v6	06/09/2019	Hardware overview with RC 2 parts list for PVC added . Installation of mullion security striker added → <i>from page 224</i> . Installation of anti-pushback function added → <i>from page 226</i> . Installation drawing diagram A – RC 2 / RC 2 N – PVC added . Incorrect material no. amended. Routing depth for VT gearbox amended → <i>from page 171</i> . Assignment of dimensions in the first opening sash and figure showing the position of the anti-lifting device amended → <i>from page 195</i> . Table of strikers, on the locking side, can be routed in, changed → <i>from page 213</i> .



Ver- sion	Date	Changes
v7	31/10/2019	<p>Frame component positions for RC and striker for anti-pushback function added → <i>from page 213</i>.</p> <p>All hardware overviews amended.</p> <p>In parts lists, size-dependent combinations for centre lock component, vertical, amended.</p> <p>Drilling jig for mullion security striker amended → <i>from page 224</i>.</p> <p>Drilling jig for striker for anti-pushback function amended → <i>from page 226</i>.</p> <p>Drilling pattern for timber striker, can be routed in: dimensions amended → <i>from page 173</i>.</p> <p>Components in the floating mullion – PVC: positions in the second opening sash amended → <i>from page 195</i>.</p> <p>Frame component positions amended → <i>from page 213</i>.</p> <p>Striker to prevent incorrect operation: dimensional drawings in the open sliding position amended → <i>from page 221</i>.</p> <p>Operator track stopper position amended → <i>from page 238</i>.</p> <p>All installation drawings amended (dimensioning of the sizes rounded up) → <i>from page 243</i>.</p>
v8	23/04/2021	<p>Centre fixing is undone by being screwed down. Changed for roller units, control unit and centre closers.</p> <p>Roller units, control unit and centre closers changed.</p> <p>Installation drawings changed → <i>from page 243</i>.</p> <p>Component drawings added → <i>from page 31</i>.</p> <p>Components with Soft function added → <i>from page 161</i>.</p> <p>Mullion locking cam – now also adjustable – added.</p> <p>Adjustment of adjustable components added → <i>from page 249</i>.</p> <p>Operation changed → <i>from page 250</i>.</p>
v9	26/08/2022	<p>Application range 3:1 added → <i>from page 28</i>.</p> <p>Tilt protection device added.</p> <p>Roller track dimensions added → <i>from page 31</i>.</p> <p>Hardware overviews divided according to timber and PVC and added accordingly.</p> <p>Customer-specific hardware overviews added → <i>from page 54</i>.</p> <p>Order quantities added to parts lists.</p> <p>Mat. no. CL 480 in “Size-dependent combination” tables amended.</p> <p>Structure of centre locks in parts list amended.</p> <p>Some drilling jigs for REHAU removed. Replacement: combination drilling jig.</p> <p>Drilling jig for activator added → <i>from page 157</i>.</p> <p>Drilling jig for stopper added → <i>from page 157</i>.</p>

Ver- sion	Date	Changes
v10	28/07/2023	<p>Maximum sash weight changed to 250 kg.</p> <p>Maximum sash rebate width for diagram C changed to 1500 mm.</p> <p>Diagram C tilt protection device added.</p> <p>Diagram C added for Salamander evolutionDrive Plus+ → <i>from page 106.</i></p> <p>aluplast smart-slide neo added → <i>from page 66.</i></p> <p>Schüco LivIng move added .</p> <p>Screw overview added → <i>from page 170.</i></p> <p>Notching of customer-specific cover profile added → <i>from page 194.</i></p> <p>Installation of asymmetrical components added.</p> <p>Notes on the component test for centre closers added → <i>from page 187.</i></p> <p>Diagram C for GEALAN Smoovio VT espagnolette for second opening sash changed to BS 25 → <i>from page 86.</i></p> <p>Formula for cutting the adapter profile amended → <i>from page 177.</i></p> <p>Formula for cutting the operator track amended → <i>from page 203.</i></p> <p>Installation of activator with packer amended (new drilling jigs) → <i>from page 227.</i></p> <p>REHAU Synego Slide VT espagnolette BS 35 removed.</p>
v11	04/03/2024	<p>Permissible sash weight changed.</p> <p>Application diagrams added for systems with S.kg up to 200 kg → <i>from page 26.</i></p> <p>Material number of striker, which can be routed in, changed.</p> <p>Timber: material no. of buffer changed.</p> <p>Veka Move 76 added → <i>from page 132.</i></p> <p>Deceuninck Legend Slide Plus added → <i>from page 144.</i></p> <p>Corner drives without cam added for diagram C.</p> <p>Installation position of operating sequence control components changed.</p> <p>Timber hardware overviews: application ranges for diagram K added → <i>4.1 "Timber" from page 36.</i></p> <p>Salamander: material no. of frame adapter profile changed → <i>from page 98.</i></p> <p>Material no. of drilling jigs for strikers added / changed → <i>from page 155.</i></p> <p>Application range of control unit with Soft function changed and SoftStop added → <i>from page 161.</i></p> <p>Centring unit added → <i>from page 163.</i></p> <p>Installation sequence changed.</p> <p>Components in the floating mullion added → <i>from page 195.</i></p> <p>Position dimension for rubber buffer changed → <i>from page 193.</i></p> <p>Preparations for installing the tilt protection device removed.</p> <p>Additional version added to preparations for installing the adapter profile → <i>from page 177.</i></p> <p>Frame component positions changed → <i>from page 213.</i></p> <p>Installation of activator changed → <i>from page 227.</i></p> <p>Installation drawings changed → <i>from page 243.</i></p> <p>Schüco LivIng Move removed.</p>

1.2 Instructions

This manual contains important information, instructions, application diagrams (max. sash sizes and weights) and assembly instructions for the installation, maintenance and operation of hardware.

The information and instructions contained in this document refer to products belonging to the Roto hardware system named on the front page.

All steps must be completed in sequence.

The following documents apply in addition to these instructions:

- Handles catalogue: CTL_1

The following guidelines also apply:

Gütegemeinschaft Schlösser und Beschläge e.V.

- Directive TBDK: Attachment of supporting fitting components for turn-only and tilt&turn fittings
- Directive VHBE: Hardware for windows and balcony doors – Guidelines/advice for end-users
- Directive VHBH: Hardware for windows and balcony doors – Guidelines/advice on the product and on liability

VFF (German Window and Facade Association)

- TLE.01: Correct handling of ready-to-install windows and external doors during transport, storage and installation
- WP.01: Maintenance of windows, facades and external doors – Maintenance, care and inspection – Information for sales
- WP.02: Maintenance of windows, facades and external doors – Maintenance, care and inspection – Measures and documents
- WP.03: Maintenance of windows, facades and external doors – Maintenance, care and inspection – Maintenance agreement

Additional guidelines

- Instructions and information issued by profile manufacturers, e.g. manufacturers of windows and balcony doors
- Instructions and information issued by screw manufacturers
- The applicable regulations, directives and national laws

Storing the instructions

These instructions are an important part of the product. The instructions must be stored so that they are always to hand.

Explanation of the markings

The manual uses the following markings for emphasis (e.g. in figures or instructions):

Marking	Meaning
	Optional / alternative components seated in the sash
	Sash / components seated in the sash
	Optional / alternative components seated in the frame
	Frame / components seated in the frame
	Drill holes, routing, screw positions
	Unaffected components / indirectly affected components
	Components, arrows or movements that have just been described

Marking	Meaning
	Item number
[1]	Legend
[A]	Steps



INFO
Any dimensions without a unit in the instructions are given in millimetres (mm). Other units of measurement are clearly indicated by the presence of the differing unit.



INFO
Figures are provided in the left-hand version. The process for the right-hand version is mirror-inverted.

1.3 Symbols

Symbol	Meaning
	First-level list
	Second-level list
	(Cross-)reference
	Result
	Unnumbered step
1.	Numbered step
a.	Numbered second-level step
	Requirement

1.4 Pictographs

Symbol	Meaning
	Timber / PVC
	Timber
	PVC
	Sash rebate width
	Sash rebate height
	Handle position vertically upwards
	Handle position vertically downwards
	Sash handle height
	Left of sash
	Top of sash



Symbol	Meaning
	Top right and bottom right of sash
	Top and bottom of sash
	Top left and right and bottom left and right of sash
	Right of sash
	Bottom of sash
	Sash diagram C, second opening sash, right
	Left of frame
	Bottom left of frame
	Top left of frame
	Top right of frame
	Top and bottom right of frame
	Bottom of frame
	Bottom left of frame

1.5 Product features

Symbol	Meaning
	Cropping range
	Width
	Description
	Backset
	Left / right version
	Colour
	Colour code, Roto

Symbol	Meaning
	Sash width
	Sash height
	Sash weight
	Fixed handle height
	Information
	Couplable
	Length
	Material
Nº	Material number
	Installation type
	Surface
	Number of locking cams
	Type of locking cams

1.6 Abbreviations

Abbreviation	Meaning
approx.	approximately
CTL	Catalogue
BS	Backset
E	E cam
IMO	Installation instructions
SRW	Sash rebate width
SRH	Sash rebate height
S.kg	Sash weight
T / PVC	Timber / PVC
KU	Couplable
kg	Kilograms
KSR	Vertical tilting
L	Left
Max.	Maximum
MUL	Mullion
Min.	At least

Abbreviation	Meaning
mm	Millimetres
CL	Centre lock
Nm	Newton metres
Not sh.	Not shown
P	Mushroom cam
R	Right
FEW	Frame external width
FEH	Frame external height
FIW	Frame internal width
RC	Resistance class
V	V cam
e.g.	For example

1.7 Target groups

The information in this document is directed at the following target groups:

Hardware dealers

The “hardware dealers” target group includes all companies and individuals that purchase hardware from hardware manufacturers for resale, without modifying or further processing the hardware.

Window and balcony door manufacturers

The “window and balcony door manufacturers” target group includes all companies and individuals that purchase hardware from hardware manufacturers or hardware dealers and further process the hardware by integrating it in windows and balcony doors.

Building element dealers or installation companies

The “building element dealers or installation companies” target group includes all companies and individuals that purchase windows and balcony doors from window and balcony door manufacturers for resale and for installation in construction projects, without modifying the windows or balcony doors.

Builders

The “builders” target group includes all companies and individuals who place orders for the manufacture of windows and balcony doors for installation in their construction projects.

End users

The “end users” target group includes all individuals who use the installed windows and balcony doors.

1.8 Target groups’ obligation to give instructions



INFO

Each target group must fulfil their obligation to give instructions in full.

Unless specified otherwise in the text below, documents and information can be passed on as a printed document, on a data storage device or via the Internet.

Responsibility of hardware dealers

Hardware dealers must pass the following documents on to the window and balcony door manufacturer:

- Catalogue

- Installation, maintenance and operation instructions
- Directive on attachment of supporting fitting components for turn-only and tilt&turn fittings (TBDK)
- Guidelines/advice on the product and on liability (VHBH)
- Guidelines/advice for end-users (VHBE)

Responsibility of the window and balcony door manufacturer

The window and balcony door manufacturer must pass the following documents on to building element dealers or the builder, even if a subcontractor (installation company) is involved:

- Installation, maintenance and operation instructions
- Directive on attachment of supporting fitting components for turn-only and tilt&turn fittings (TBDK)
- Guidelines/advice on the product and on liability (VHBH)
- Guidelines/advice for end-users (VHBE)

They must ensure that the end users are provided with the documents and information intended for them in printed format.

Responsibility of building element dealers and the installation company

Building element dealers must pass the following documents on to the builder, even if a subcontractor (installation company) is involved:

- Installation, maintenance and operation instructions (with a focus on hardware)
- Guidelines/advice on the product and on liability (VHBH)
- Guidelines/advice for end-users (VHBE)

Responsibility of the builder

The builder must pass the following documents on to the end user:

- Installation, maintenance and operation instructions (with a focus on hardware)
- Guidelines/advice for end-users (VHBE)

1.9 Copyright protection

The contents of this document are copyright-protected. This content can be used when working with the hardware. Any other use is not permitted without written permission of the manufacturer.

1.10 Limitation of liability

All information and instructions contained in this document have been compiled in consideration of the applicable standards and regulations, the latest developments in technology and many years of knowledge and experience.

The hardware manufacturer assumes no liability for damage caused by:

- Failure to comply with this document and all product-specific documents and other applicable directives (see the chapters entitled "Security" and "Stipulated use").
- Improper use / misuse (see the chapters entitled "Security" and "Stipulated use").
- Insufficient invitation to tender, non-compliance with installation specifications and non-compliance with the application diagrams (where available).
- Increased contamination.

Claims made by third parties against the hardware manufacturer on account of damage resulting from misuse or failure to comply with the obligation to give instructions on the part of hardware dealers, window, door and balcony

door manufacturers and building element dealers or the builder are passed on accordingly.

The obligations agreed in the delivery contract, the general terms and conditions, the hardware manufacturer's terms and conditions of delivery and the legal provisions applicable when the contract was concluded shall apply.

The warranty only covers original Roto components.

We reserve the right to make technical changes as part of improvement to performance characteristics and further development.

1.11 Preserving the surface finish



ATTENTION

Surface treatments may cause property damage.

Surface treatments (e.g. painting and varnishing) on elements can damage components or prevent them from working properly.

- ▶ For masking, only use adhesive tape that does not damage the paint coats. Consult the manufacturer if in doubt.
- ▶ Protect components against direct contact with the surface treatment.
- ▶ Protect components against contamination.



ATTENTION

Using incorrect cleaning agents and sealing compounds may cause property damage.

Cleaning agents and sealing compounds may damage the surfaces of components and gaskets.

- ▶ Do not use aggressive or flammable liquids, acidic cleaners or abrasive cleaners.
- ▶ Only use mild, pH-neutral cleaning agents that have been diluted.
- ▶ Apply a thin protective film to the components, for example using a cloth soaked in oil.
- ▶ Avoid aggressive vapours (e.g. produced by formic acid, acetic acid, ammonia, amine compounds, ammonia compounds, aldehyde, carbolic acid, chlorine, tannic acid) around the element.
- ▶ Do not use any acetic acid-crosslinking or acid-crosslinking sealing compounds or those with the aforementioned constituents as both direct contact with the sealing compound and its fumes can corrode the surface of the components.



ATTENTION

Contamination may cause property damage.

Contamination prevents components working properly.

- ▶ Remove deposits and contamination caused by construction materials (e.g. plaster, gypsum).
- ▶ Keep components free of deposits and contaminants.



ATTENTION

(Permanently) damp room air may cause property damage.

Damp room air can lead to mould growth and corrosion caused by condensation.

- ▶ Provide adequate ventilation for components, particularly during the construction phase.
 - ▶ Intensively air out the room several times per day by opening all elements for approximately 15 minutes. If intensive airing is not an option, place the elements in the tilt position and provide airtight masking inside the room, e.g. if there is fresh screed that cannot be walked on or must not be exposed to draughts. Discharge any humidity present in the room air to the outside using condensation dryers.
 - ▶ Establish a ventilation plan for more complex construction projects if necessary.
 - ▶ Provide adequate ventilation during holiday periods as well.
-



2 Security

This manual contains instructions relating to safety. The principal safety information in this chapter includes information and instructions relevant to the safe use or maintaining the safe condition of the product. Warning instructions that relate to handling warn of residual risks and are located before steps that are relevant to safety.

- Follow all of the instructions in order to prevent personal injury and property and environmental damage.

2.1 Presentation and structure of warning instructions

The warning instructions relate to individual actions and are structured as follows with a warning symbol:



DANGER

Nature and source of the danger.

- Explanation and description of the danger and the implications.
- Measures to take to avert the danger.

2.2 Security levels of warning instructions

The warning instructions that relate to handling are identified differently according to the severity of the associated danger. The signal words and the associated warning symbols used are clarified below.



DANGER

Immediate risk of death or serious injuries.

- Observe these warning instructions to avoid personal injuries.



WARNING

Potential risk of death or serious injuries.

- Observe these warning instructions to avoid personal injuries.



CAUTION

Risk of injuries

- Observe these warning instructions to avoid personal injuries.



ATTENTION

Reference to property or environmental damage.

- Observe these warning instructions to avoid property or environmental damage.

2.3 Stipulated use

The hardware system described in these instructions is intended for installation in sliding sashes in windows and balcony doors. The hardware system is only intended for further processing on windows and balcony door sashes for vertical installation made from the materials described in these instructions. The hardware system opens sashes in windows and balcony doors and closes them tightly.

Stipulated use also includes compliance with all safety information and specifications contained in these instructions, the other applicable documents and the applicable regulations, directives and national laws.

2.3.1 Misuse

Any use and processing of the products that goes beyond or differs from the stipulated use is considered misuse and can lead to hazardous situations.



WARNING

Misuse may pose a risk of death!

Misuse and incorrect installation of hardware can lead to serious injuries.

- ▶ Only use hardware combinations that have been approved by the hardware manufacturer.
- ▶ Only use original accessories or those that have been approved by the hardware manufacturer.
- ▶ Note the product-related documentation → *from page 8.*

2.3.2 Usage restriction

Opened sashes in windows and balcony doors, and windows and balcony door sashes that are unlocked or placed in ventilation positions, only have a shielding effect. They do not meet the following requirements:

- Joint sealing
- Driving rain impermeability
- Sound insulation
- Thermal insulation
- Burglary inhibition

2.4 Stipulated use for end users

On windows or balcony doors with sliding hardware, window sashes or balcony door sashes can be moved horizontally or vertically by operating a handle.

On special structures, various sashes can additionally be brought into a turn position and / or into a tilt position restricted by the scissor stay version.

When closing a sash and locking the hardware, the gasket counter force must generally be overcome.



WARNING

Opening and closing sashes in an uncontrolled manner may pose a risk of fatal injury!

Opening and closing the sash in an uncontrolled manner may lead to serious injuries.

- ▶ Ensure that the sash does not collide with the frame, opening restrictor (buffer) or other sashes when it is moved into the fully open or closed position.
- ▶ Ensure that the sash is slowly guided by hand throughout its entire movement range, until it has been brought into a fully closed or opening position.
- ▶ Ensure that the sash coverage at the top is so large that the sash is prevented from falling out, even if the window or hardware components is / are operated incorrectly.



ATTENTION

Opening and closing sashes in an uncontrolled manner may result in property damage.

Opening and closing the sash in an uncontrolled manner may cause the element to malfunction.

- ▶ Ensure that the sash does not collide with the frame, opening restrictor (buffer) or other sashes when it is moved into the fully open or closed position.
- ▶ Ensure that the sash is slowly guided by hand throughout its entire movement range, until it has been brought into a fully closed or opening position.

Any use and processing of the products that goes beyond or differs from the stipulated use is considered misuse and can lead to hazardous situations.

No claims of any kind can be made on account of damage resulting from failure to comply with the stipulated use.

2.4.1 Misuse

Any use and processing of the products that goes beyond or differs from the stipulated use is considered misuse and can lead to hazardous situations.



WARNING

Misuse may pose a risk of death!

Misuse and incorrect installation of hardware can lead to serious injuries.

- ▶ Only use hardware combinations that have been approved by the hardware manufacturer.
- ▶ Only use original accessories or those that have been approved by the hardware manufacturer.
- ▶ Note the product-related documentation → *from page 8*.

2.5 Basic safety information

The following hazards may arise when handling the product:

2.5.1 Installation

Incorrect installation poses an immediate risk of death or serious injuries.

Incorrect installation or assembly of hardware can lead to hazardous situations or property damage. Depending on the height of the fall, this can result in serious to life-threatening injuries and glass breakage.

- ▶ Only use hardware combinations that have been approved by the hardware manufacturer.
- ▶ Only use original accessories or those that have been approved by the hardware manufacturer.
- ▶ Always have installation performed by a specialist company.

Heavy loads pose a risk of injury.

Lifting and carrying heavy loads may lead to injuries in the event of a fall or physical overexertion.

- ▶ Note the applicable accident prevention regulations.

- ▶ Transport heavy loads with two people and use suitable transportation means (such as an industrial truck).

Physical overexertion may be harmful to health.

Moving heavy loads for extended periods leads to physical injury in the long term.

- ▶ When carrying and lifting by hand, comply with a maximum weight of 25 kg for men and 10 kg for women.
- ▶ Carry and lift even small loads with an ergonomically correct posture.

2.5.2 Use

Falls from open windows and balcony doors present an immediate risk of death and pose the risk of serious injuries.

Opened sashes of windows and balcony doors create a danger zone. Depending on the height of the fall, this can result in serious to life-threatening injuries and glass breakage.

- ▶ Take care when in the vicinity of open windows and balcony doors.
- ▶ Keep children and anyone unable to understand the risks away from the hazardous area.

Trapping body parts in the opening between sash and frame may lead to serious injuries.

Gripping between the sash and frame when closing windows and balcony doors poses the risk of crushing injuries.

- ▶ When closing windows and balcony doors, never grip between the sash and frame and always exercise caution.
- ▶ Keep children and anyone unable to understand the risks away from the hazardous area.

Opening and closing leaves improperly poses the risk of injury and property damage.

Incorrect opening and closing of leaves can result in serious injuries and substantial property damage.

- ▶ When moving the sash, ensure that it will not slam against the frame or other leaves once fully opened or closed.
- ▶ Ensure that the sash is slowly guided by hand throughout its entire movement range, until it has been brought into a fully closed or opening position.
- ▶ When closing a sash and locking the hardware, the gasket counter force must be overcome.

Misuse poses a risk of injury and property damage.

Misuse can lead to hazardous situations and may destroy the hardware, frame materials or other individual components within the windows or balcony doors.

- ▶ Do not introduce any obstacles in the opening area between the frame and window or balcony door sashes.
- ▶ Do not place additional loads on windows and balcony door sashes.
- ▶ Refrain from intentionally or uncontrollably slamming or pushing the window or balcony door sash against the window reveal or the opening restrictor.

Improper maintenance poses the potential risk of injury and property damage.

Windows and balcony doors, including the hardware, require expert maintenance (care, cleaning, maintenance and inspection) in order to guarantee their proper condition and safe use.

- ▶ Keep the hardware free of deposits and contaminants.



- ▶ Carry out care and cleaning tasks as specified in these instructions.
- ▶ Always have regular maintenance, adjustment and repair work carried out by a specialist company.

2.5.3 Ambient conditions

Physical and chemical influences may result in property damage.

Hardware components can be permanently damaged in a saline, aggressive or corrosive environment to the point that they can no longer function.

- ▶ Do not use the hardware components in a saline, aggressive or corrosive environment.
- ▶ Carry out care and cleaning tasks as specified in these instructions.
- ▶ Corrosion protection must be inspected by an authorised specialist company as part of regular maintenance work.

Moisture may cause property damage.

Depending on the outside temperature, relative humidity of the room air and installation situation of the windows and balcony doors, a temporary build-up of condensation may occur. This can lead to corrosion on the hardware and mould growth on the frame or wall. Ambient conditions that are too damp, particularly during the construction phase, can lead to timber elements warping.

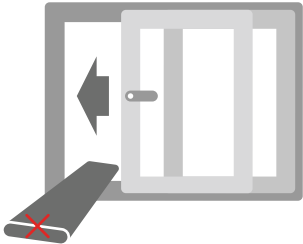
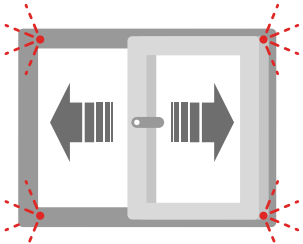
- ▶ Avoid preventing the circulation of air (e.g. due to deep reveals, curtains and unfavourable positioning of heaters or the like).
- ▶ Intensively air out the room several times per day.
Open all windows and balcony doors for approximately 15 minutes so that the air in the room can be completely replaced.
- ▶ Provide adequate ventilation during holiday periods as well.
- ▶ Create a ventilation plan for construction projects if necessary.

2.6 Operation

The safety symbols and markings and the associated warning instructions explained below apply to the safe operation of windows and balcony doors.

Safety symbols and markings

Symbol	Meaning
	<p>Falls from open windows and balcony doors present an immediate risk of death and pose the risk of serious injuries.</p> <p>Take care when in the vicinity of open windows and balcony doors.</p> <p>Keep children and anyone unable to understand the risks away from the hazardous area.</p>
	<p>Trapping body parts in the opening between sash and frame may lead to serious injuries.</p> <p>When closing windows and balcony doors, never grip between the sash and frame and always exercise caution.</p> <p>Keep children and anyone unable to understand the risks away from the hazardous area.</p>
	<p>Placing additional loads on the sash may lead to minor injuries and property damage.</p> <p>Do not place additional loads on windows and balcony door sashes.</p>

Symbol	Meaning
	<p>Introducing obstacles into the opening between sash and frame may result in minor injuries and property damage.</p> <p>Do not introduce any obstacles in the opening area between the frame and window or balcony door sashes.</p>
	<p>Opening and closing the sash in an uncontrolled manner may result in minor injuries and property damage.</p> <p>Ensure that the sash is slowly guided by hand throughout its entire movement range, until it has been brought into a fully closed or opening position.</p>



3 Information on the product

3.1 General hardware characteristics

- Circumferential gasket
- Concealed hardware
- Intuitive, simple operation
- Even heavy sashes can be opened with less effort because the handle is easy to use.
- Ease of closing thanks to the smooth automatic retraction of the sash into the frame.
- Innovative closing movement perpendicular to the frame profile.
- Active locking points including in the mullion.
- PVC RC 2 / RC 2 N: SKG**-certified
- Control unit with Soft function:
 - SoftClose (damped closing)
 - SoftOpen (damped opening)
 - SoftStop on the espagnolette side (damps in the locking direction)
 - SoftStop on the mullion side (damps in the opening direction)

3.2 Application ranges

- The sash runs within the frame profile with a retracting distance of 8 mm.
- Narrow profile views possible
- SRW 710 mm – 2000 mm*, exceptions:
 - Diagram A: 2 control units with Soft function SRW 920 mm – 2000 mm*
 - Diagram K / C: SRW 710 mm – 1500 mm**
 - Diagram K / C: 2 control units with Soft function SRW 920 mm – 1500 mm**
- SRH 600 mm – 2500 mm*
- S.kg max. 250 kg*
- Opening diagrams:
 - A and A' (running inward or outward)
 - K and K' (running inward or outward)
 - C and C' (running inward or outward)
- Basic security and RC 2 / RC 2 N resistance class
- Operating range -20 °C to +80 °C

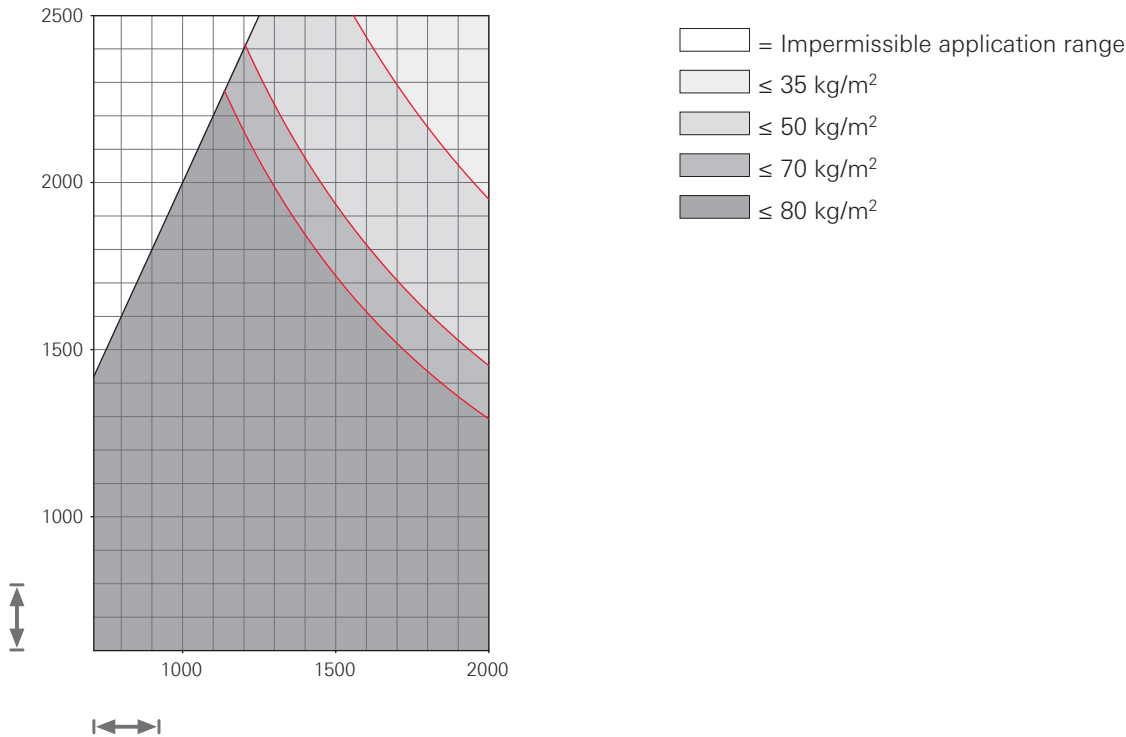
* = adhere to application ranges specified by system suppliers.

** = in the case of timber, with customer-specific operator and roller tracks, a SRW of up to 2000 mm can also be constructed.

3.3 Application diagrams

3.3.1 200 kg

SRH:SRW = max. 2:1



The specifications in the application diagram refer to the glass weight in kg/m^2 .

1 mm/m² glass thickness $\approx$ 2.5 kg

Application range		
	Sash rebate width (SRW)	710 – 2000 mm
	Sash rebate height (SRH)	600 – 2500 mm
	Sash weight (S.kg)	Max. 200 kg
–	Glass weight	Max. 80 kg/m^2



INFO

When using control units with soft function:
S.kg > 20 kg



SRH:SRW = min. 2:1 up to max. 3:1 – with tilt protection device

For PVC profiles, diagrams A, A', K and K'. Diagrams C and C' available upon request.

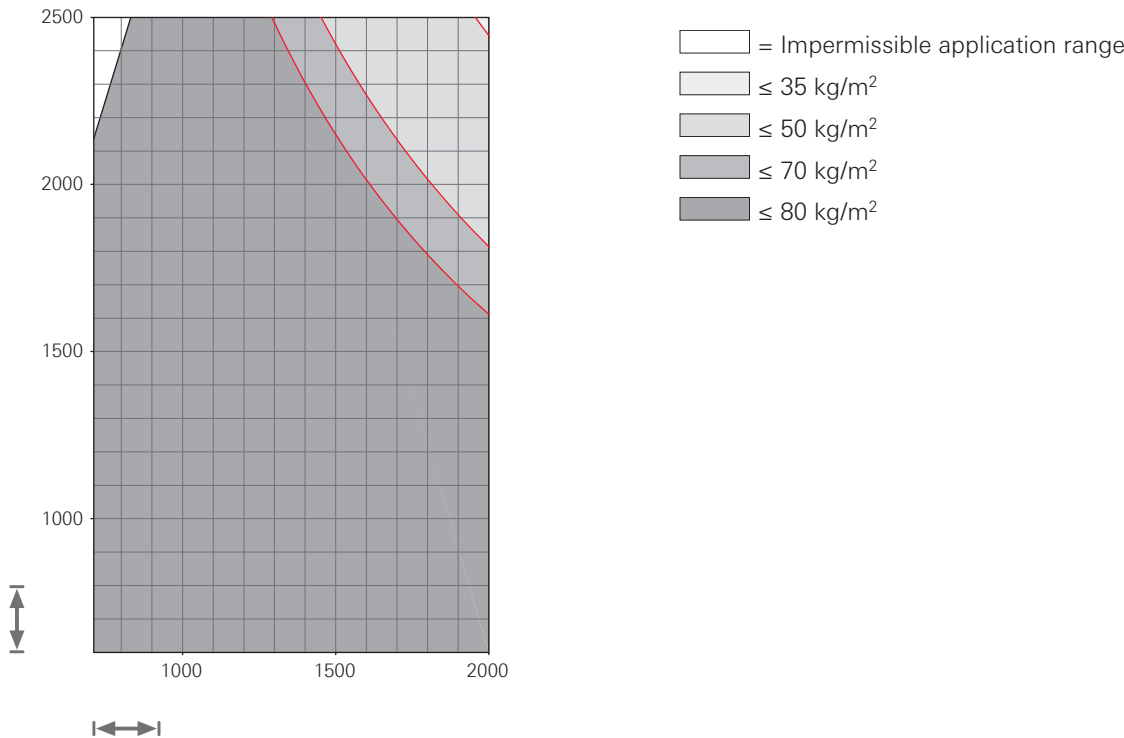


DANGER

The uncontrolled tilting of sashes with aspect ratios > 2:1 poses a risk of death!

Uncontrolled tilting may cause sashes with aspect ratios > 2:1 to jump out of the operator track. This may lead to hazardous situations and cause serious or fatal accidents.

- ▶ The roller track must have two walls → 3.6 "Dimensions of the roller track" from page 31.
- ▶ Install the tilt protection device (only without control unit with Soft function) → 3.7 "Dimensions of the tilt protection device" from page 31.
- ▶ An installation space examination is a mandatory part of a profile assessment.



The specifications in the application diagram refer to the glass weight in kg/m².

1 mm/m² glass thickness ≈ 2.5 kg



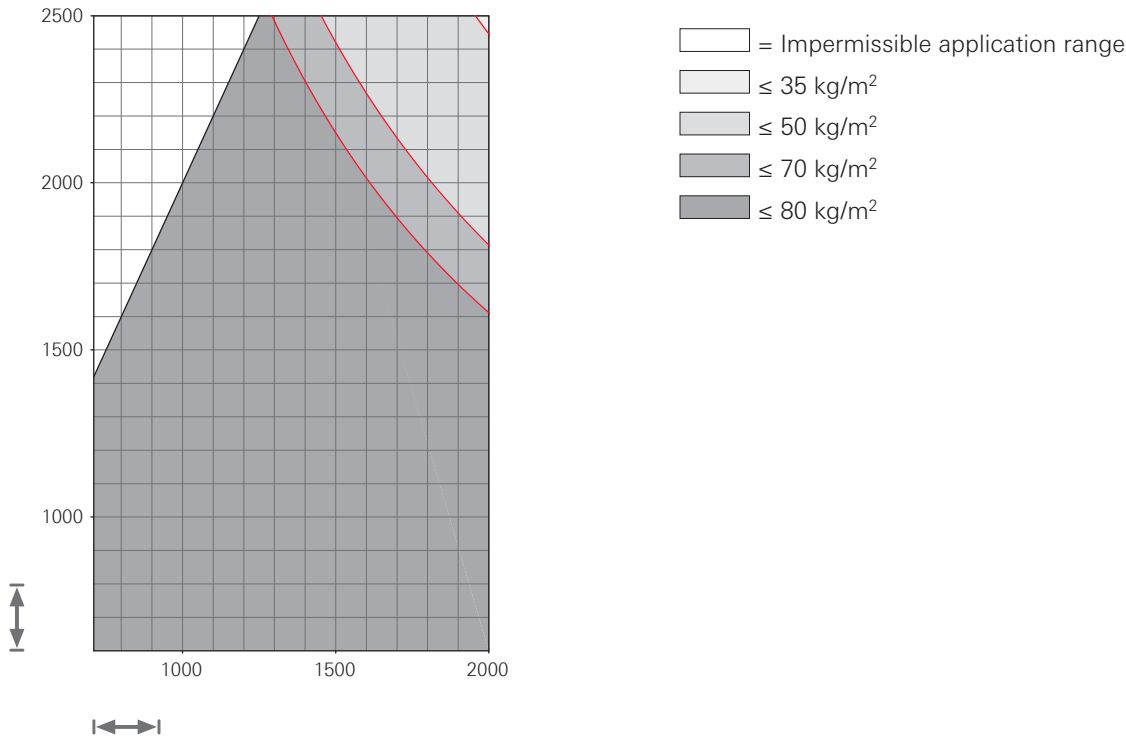
INFO

The use of control units with Soft function is not possible with aspect ratios > 2:1.

Application range		
	Sash rebate width (SRW)	710 – 2000 mm
	Sash rebate height (SRH)	600 – 2500 mm
	Sash weight (S.kg)	Max. 200 kg
–	Glass weight	Max. 80 kg/m ²

3.3.2 250 kg

SRH:SRW = max. 2:1



The specifications in the application diagram refer to the glass weight in kg/m^2 .

1 mm/m^2 glass thickness $\approx 2.5 \text{ kg}$

Application range		
	Sash rebate width (SRW)	710 – 2000 mm
	Sash rebate height (SRH)	600 – 2500 mm
	Sash weight (S.kg)	Max. 250 kg
–	Glass weight	Max. 80 kg/m^2



INFO

When using control units with soft function:
S.kg > 20 kg



SRH:SRW = min. 2:1 up to max. 3:1 – with tilt protection device

For PVC profiles, diagrams A, A', K and K'. Diagrams C and C' available upon request.

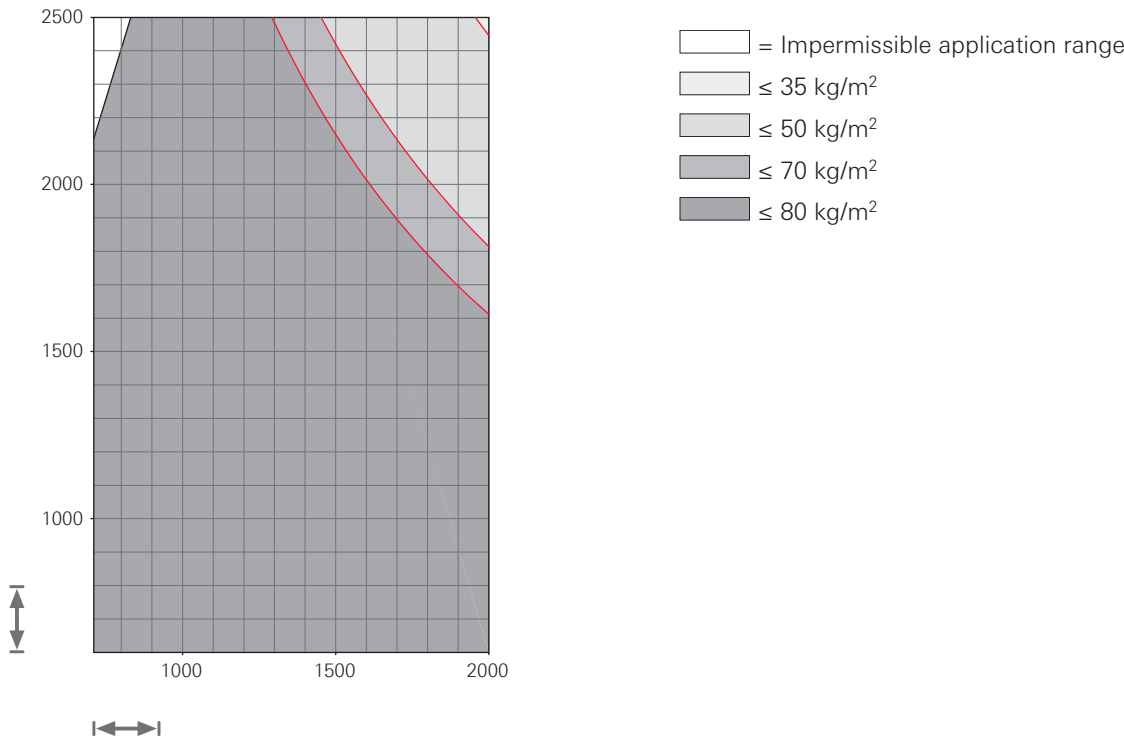


DANGER

The uncontrolled tilting of sashes with aspect ratios > 2:1 poses a risk of death!

Uncontrolled tilting may cause sashes with aspect ratios > 2:1 to jump out of the operator track. This may lead to hazardous situations and cause serious or fatal accidents.

- ▶ The roller track must have two walls → 3.6 “Dimensions of the roller track” from page 31.
- ▶ Install the tilt protection device (only without control unit with Soft function) → 3.7 “Dimensions of the tilt protection device” from page 31.
- ▶ An installation space examination is a mandatory part of a profile assessment.



The specifications in the application diagram refer to the glass weight in kg/m².

1 mm/m² glass thickness ≈ 2.5 kg



INFO

The use of control units with Soft function is not possible with aspect ratios > 2:1.

Application range		
	Sash rebate width (SRW)	710 – 2000 mm
	Sash rebate height (SRH)	600 – 2500 mm
	Sash weight (S.kg)	Max. 250 kg
–	Glass weight	Max. 80 kg/m ²

3.4 Design variants

3.4.1 Overview

Diagram A

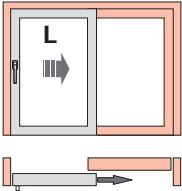
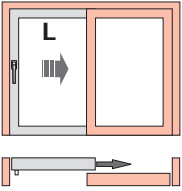
Diagram A (running on the inside)	Diagram A' (running on the outside)
	
1 sliding sash (left or right) 1 fixed glazing element	1 sliding sash (left or right) 1 fixed glazing element

Diagram C

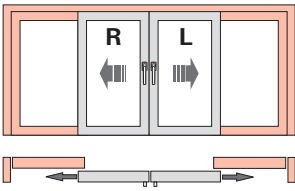
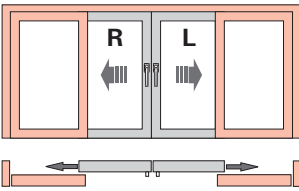
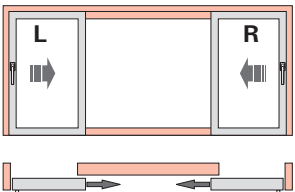
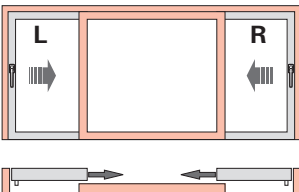
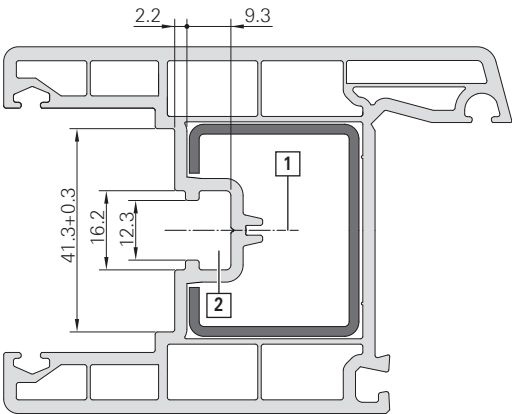
Diagram C (running on the inside)	Diagram C' (running on the outside)
	
2 sliding sashes (left and right) 2 fixed glazing elements	2 sliding sashes (left and right) 2 fixed glazing elements

Diagram K

Diagram K (running on the inside)	Diagram K' (running on the outside)
	
2 sliding sashes (left and right) 1 fixed glazing element	2 sliding sashes (left and right) 1 fixed glazing element

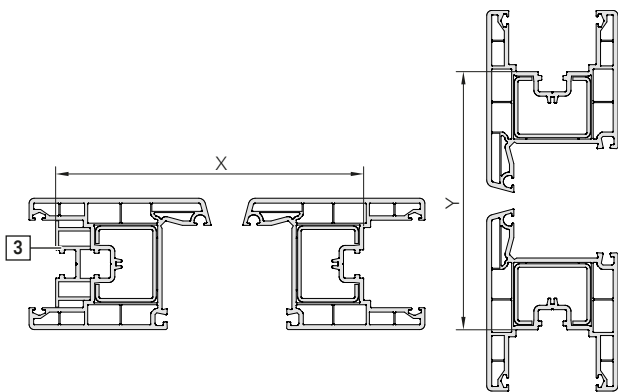
3.5 Hardware groove dimensions



Sash profile cross section

[1] Hardware axis

[2] Hardware groove



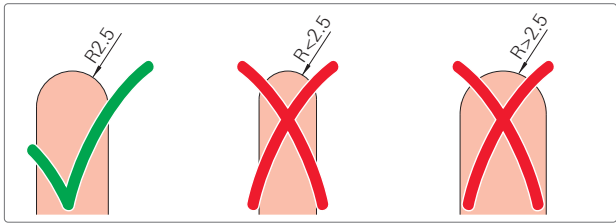
X = SRW (including assembly profile [3])
Y = SRH

3.6 Dimensions of the roller track



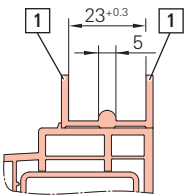
INFO

Roller track only made from stainless steel or anodised aluminium.



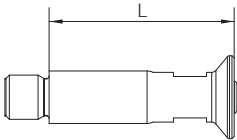
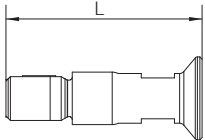
Roller track shape

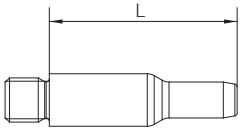
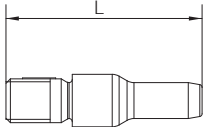
3.7 Dimensions of the tilt protection device



Two walls [1] next to the roller track are required for aspect ratios > 2:1.

3.8 Component dimensions

Mullion locking cam		Description
		L = 17.4 – 62.4
		Adjustable L = 19.8 – 53.5

Pin for anti-pushback function	Description
	L = 20.0 – 46.5
	Adjustable L = 35.5 – 53.5



4 Hardware overviews

The hardware overviews on the following pages are a recommendation on the part of Roto Frank Fenster- und Tür-technologie GmbH.

The basic page layout in the hardware overviews chapter firstly shows examples of the combination of individual hardware components, and the associated parts list can be seen on the following pages.

The item numbers in the squares link the hardware overview to the parts list.

The actual composition of the hardware depends on:

- the height of the element
- the width of the element
- the weight of the element
- the profile system
- the design variant
- Resistance class

Application range

The applicable application range [A] depends on the opening type and resistance class. The application range of the individual components [B] may differ from the applicable application range [A].

Anwendungsbereich

FFB: 290 - 1600 mm

[A] **FFH:** 430 - 2800 mm

FG: max. 150 kg

[1] DK-Getriebe KSR – Griffsitz konstant, Dornmaß 15 mm

								Nº
[B]	280 – 570	120	460	J	N	–	–	742199
	511 – 710	170	600	J	J	–	–	795324
	601 – 800	263	690	N	J	–	–	619591
	801 – 1000	413	890	N	J	1	E	619592
	1001 – 1200	513	1090	N	J	1	E	619593
	1201 – 1400	563	1290	N	J	1	E	619594
	1401 – 1600	563	1490	N	J	2	E	619595
	1601 – 1800	563	1690	N	J	2	E	619596
	1601 – 1800	1000	1690	N	J	2	E	838345
	1801 – 2000	1000	1890	N	J	2	E	794637
	2001 – 2200	1000	2090	N	J	3	E	794638
	2201 – 2400	1000	2290	N	J	3	E	794639

Example

The highlighted T&T espagnolette can generally be used from a SRH of min. 280 mm [B]. With this opening type and resistance class, elements are only allowed to be constructed from an SRH of 430 mm [A] and above. The highlighted T&T espagnolette is in the specified range and can therefore be installed.

Timber: with customer-specific operator and roller tracks, a maximum SRW of 2000 mm can also be constructed.

**INFO****Resistance classes**

- The RC 2 and RC 2 N resistance classes refer to the entire system.
- The hardware complies with the corresponding resistance classes in the required system tests.
- However, the resistance classes are only complied with if all of the other components in the system (e.g. profile system, reinforcement, glass, etc.) are also designed for this.

**INFO****Profile properties**

Design the profile optimally for the corresponding weights. Proper load transfer must be ensured by the profile manufacturer / fabricator.

Ensure that the rollers on the roller track run smoothly. Keep the roller track clean, do not powder coat or paint it.

The currently valid Roto profile assessment drawing for the specific profile and the applicable documents described in said drawing must be observed.

Please request these details from your responsible Roto sales representative.

Recommended handles can be found in the Roto Handles catalogue.

Determine the quantity of required hardware components with Roto Con Orders.

**INFO****Roto Con Orders**

Efficient online hardware configurator for the custom configuration of individual window and door hardware components. All conventional shapes and opening types can be automatically configured quickly and easily. Individual parts lists, including application ranges and an exemplary hardware overview, can be ordered from your responsible sales representative.



www.roto-frank.com

4.1 Timber

4.1.1 Diagram A, K





Application range

Diagram A

SRW: 710 – 2000 mm

SRH: 600 – 2500 mm

S.kg: max. 250 kg

Diagram K

SRW: 710 – 1500 mm

SRH: 600 – 2500 mm

S.kg: max. 250 kg

[1a] Corner drive

With E cam



[1b]

With V cam



		Nº
1	E	260275
1	V	260272

[2a] VT espagnolette → from page 152



Alternatively:

[2b] VT espagnolette, lockable → from page 152

Espagnolette extension, (SRH > 1400 mm); not sh.)

				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal



			Nº
200	–	–	308267
344	1	V	572665
480	–	–	245729
590	–	–	603442
790	1	E	603444
990	1	E	603447
1190	1	E	603462
1440	1	E	603466

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal



				Nº
130	Y	1	E	764350

[7] CL component, vertical, on the mullion

				Nº
200	Y	–	–	308267
	Y	1	E	450821
400	Y	–	–	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

[8] Roller track



	Nº
3200	782919
6400	782920

[9] Roller unit

		Nº
41	Left	821686
	Right	823733

	Nº
< 1060	2
≥ 1060	3

[10] Control unit, on the mullion side and in the centre → from page 161



Alternatively (on the mullion side):

Control unit set with Soft function (incl. activator) → from page 161



		Nº
41	Left	821685
	Right	823730

[*] Control unit set with Soft function, on the locking side → from page 161



Alternatively:

[10] Control unit

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer, adjustable

		Nº
41	Left	823751
	Right	823752
		
≤ 1200		2
1201 – 2400		3
> 2400		4

[12] MUL locking cam, adjustable

		Nº
Gasket compression adjustable	25	895955
	26	895966
	27	895970
	32	786728
	34.5	2010069
	35.5	858628
	36	895972
	39.5	839047
	42	861550
	44	895973
	45.8	791838
	47.8	788696
	49	895974
	53.5	839045
		
≤ 1200		2
1201 – 2400		3
> 2400		4

[14] Guide track

	Nº
3200	782921
6400	782922

[15] Striker to prevent incorrect operation

	Nº
Striker to prevent incorrect operation	822789

[16] Handle (200 mm handle length) → CTL_1

Recessed grip (43 mm distance), not sh.
→ CTL_1

 1**[17] Striker**

		Nº
Screw-on	–	744579
Can be routed in	Left	798224
	Right	798245
		
≤ 1200		2
1201 – 2400		3
> 2400		4

[18] Buffer 2

	Nº
17.5	757587

[20] MUL striker

		Nº
Screw-on	–	793493
Can be routed in	Left	798224
Can be routed in	Right	798245
		
≤ 1200		2
1201 – 2400		3
> 2400		4

[21] Cover cap for MUL striker, only in combination with MUL striker, screw-on.

		Nº
R01.1	Natural silver	819632
R05.3	Medium bronze	819631
R06.2	Jet black	798979
R07.2	Traffic white	808054

		
≤ 1200		2
1201 – 2400		3
> 2400		4

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side. 1

Alternatively:

[37] Rubber buffer → from page 163

	Nº
Stopper	800196

[34] Packer, profile-related quantity ^[1]

	Nº
Packer	800197

[1] Only use the number of packers that is specified in the profile assessment.



Optional

[35] Brush holder	
	Nº
Brush holder	809520
	
< 1060	2
≥ 1060	3

4.1.2 Diagram A', K'





Application range

Diagram A'

SRW: 710 – 2000 mm

SRH: 600 – 2500 mm

S.kg: max. 250 kg

Diagram K'

SRW: 710 – 1500 mm

SRH: 600 – 2500 mm

S.kg: max. 250 kg

[1a] Corner drive With E cam 2[1b] With V cam 2

		Nº
1	E	260275
1	V	260272

[2a] VT espagnolette → from page 152 1

Alternatively:

[2b] VT espagnolette, lockable → from page 152

Espagnolette extension, (SRH > 1400 mm); not sh.)

				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal 2

			Nº
200	–	–	308267
344	1	V	572665
480	–	–	245729
590	–	–	603442
790	1	E	603444
990	1	E	603447
1190	1	E	603462
1440	1	E	603466

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal 4

				Nº
130	Y	1	E	764350

[7] CL component, vertical, on the mullion

				Nº
200	Y	–	–	308267
	Y	1	E	450821
400	Y	–	–	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

[8] Roller track 1

	Nº
3200	807733
6400	807734

[9] Roller unit

		Nº
41	Left	821686
	Right	823733

	
< 1060	2
≥ 1060	3

i INFO

L version: order right components.

R version: order left components.

[10] Control unit, on the mullion side and in the centre → from page 161 1-2

Alternatively (on the mullion side):

Control unit set with Soft function (incl. activator) → from page 161  1

		Nº
41	Left	821685
	Right	823730

**INFO**

L version: order right components.

R version: order left components.

[*] Control unit set with Soft function, on the locking side → *from page 161* 

Alternatively:

[10] Control unit

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

**INFO**

L version: order right components.

R version: order left components.

[11] Centre closer, adjustable

		Nº
41	Left	823751
	Right	823752

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[12] MUL locking cam, adjustable

		Nº
Gasket compression adjustable	25	895955
	26	895966
	27	895970
	32	786728
	34.5	2010069
	35.5	858628
	36	895972
	39.5	839047
	42	861550
	44	895973
	45.8	791838
	47.8	788696
	49	895974
	53.5	839045

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[14] Guide track 1

	Nº
3200	782921
6400	782922

[15] Striker to prevent incorrect operation 1

	Nº
Striker to prevent incorrect operation	822789

[16] Handle (200 mm handle length) → CTL_1 1

Recessed grip (43 mm distance), not sh. → CTL_1  1

[17] Striker

		Nº
Screw-on	–	744579
Can be routed in	Left	798224
	Right	798245

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[18] Buffer 2

	Nº
17.5	757587

[20] MUL striker

		Nº
Screw-on	–	793493
Can be routed in	Left	798224
Can be routed in	Right	798245

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[21] Cover cap for MUL striker, only in combination with MUL striker, screw-on.

		Nº
R01.1	Natural silver	819632
R05.3	Medium bronze	819631
R06.2	Jet black	798979
R07.2	Traffic white	808054

	
≤ 1200	2
1201 – 2400	3
> 2400	4

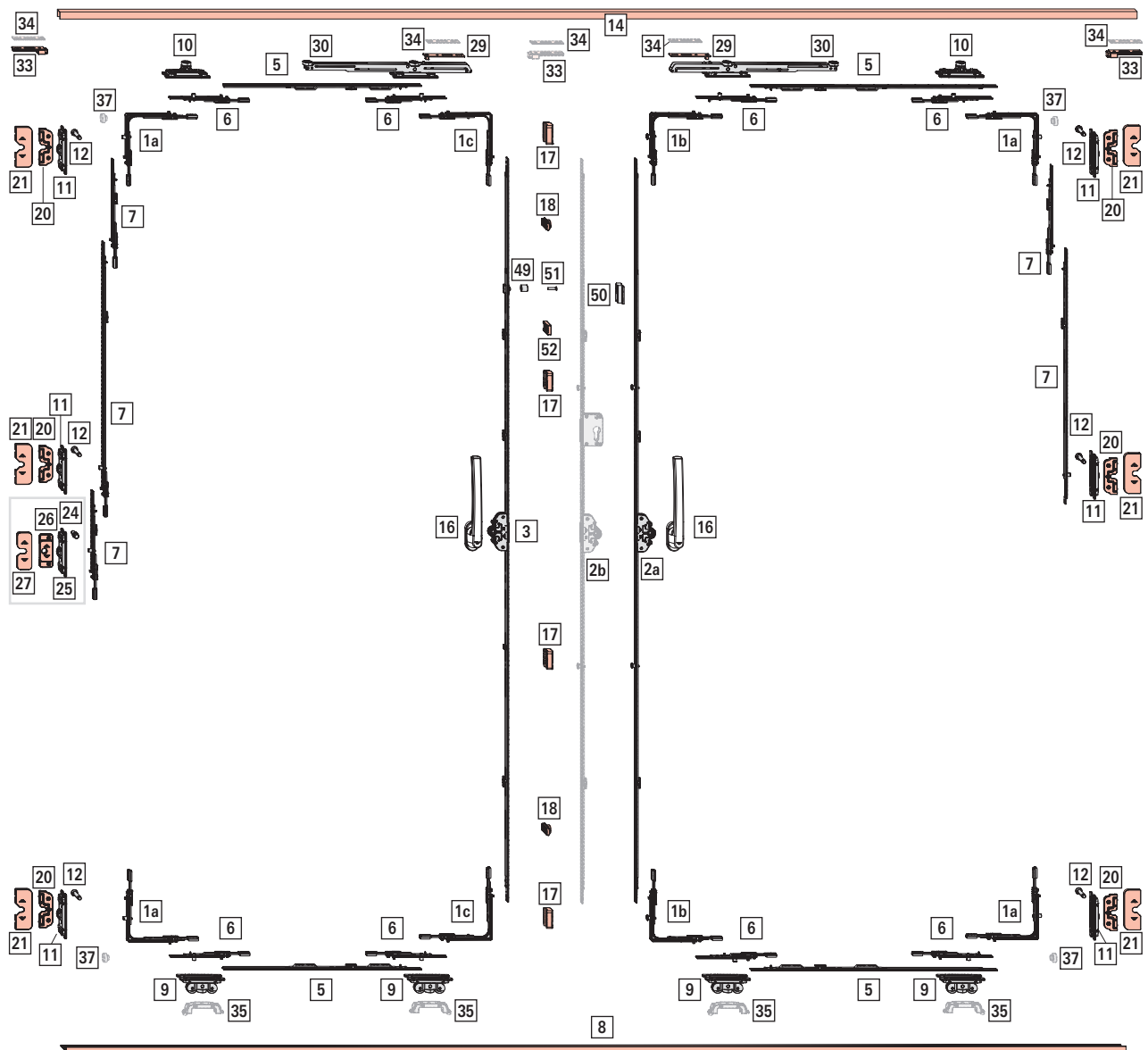
[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side.  1



Alternatively:	
[37] Rubber buffer → <i>from page 163</i>	
	Nº
Stopper	800196
[34] Packer; profile-related quantity ^[2]	
	Nº
Packer	800197
[35] Brush holder	
	Nº
Brush holder	809520
	
< 1060	2
≥ 1060	3

[2] Only use the number of packers that is specified in the profile assessment.

4.1.3 Diagram C





Application range

SRW: 710 – 1500 mm

SRH: 600 – 2500 mm

S.kg: max. 250 kg

[1a] Corner drive	With E cam	4
[1b]	With V cam	2
[1c]	Without cam	2

		Nº
1	E	260275
1	V	260272
–	–	339785

[2a] VT espagnolette → from page 152	1
Alternatively:	
[2b] VT espagnolette, lockable → from page 152	

[3] VT espagnolette, second opening sash → from page 152	1
--	---

Espagnolette extension, (SRH > 1400 mm); not sh.)

				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal	4
---------------------------------------	---

			Nº
200	–	–	308267
344	1	V	572665
480	–	–	245729
590	–	–	603442
790	1	E	603444
990	1	E	603447
1190	1	E	603462
1440	1	E	603466

Size-specific combinations:

First or second opening sash

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442

				Nº
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal	8
---	---

				Nº
130	Y	1	E	764350

[7] CL component, vertical, on the mullion	
--	--

				Nº
200	Y	–	–	308267
	Y	1	E	450821
400	Y	–	–	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

First opening sash:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

Second opening sash:

				Nº
600 – 1200	200 KU	1	E	450821
1201 – 1800	600 KU	1	E	255282
	200 KU	1	E	450821
1801 – 2000	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	1	E	450821
2001 – 2200	400 KU	–	–	297858
	600 KU	1	E	255282
	200 KU	1	E	450821

				Nº
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600 KU	1	E	255282
	200 KU	1	E	450821
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	1	E	450821

[8] Roller track 		Nº
		
3200		782919
6400		782920

[9] Roller unit		Nº
		
41	Left	821686
	Right	823733

	
< 1060	4
≥ 1060	6

[10] Control unit, on the mullion side and in the centre → <i>from page 161</i>		
Alternatively (on the mullion side):		
Control unit set with Soft function (incl. activator) → <i>from page 161</i>		

		Nº
41	Left	821685
	Right	823730

[*] Control unit set with Soft function, on the locking side → <i>from page 161</i>		
Alternatively:		

[10] Control unit

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer, adjustable		Nº
		
41	Left	823751
	Right	823752

	
≤ 1200	4
1201 – 2400	6
> 2400	8

[12] MUL locking cam, adjustable

		Nº
Gasket compression adjustable	25	895955
	26	895966
	27	895970
	32	786728
	34.5	2010069
	35.5	858628
	36	895972
	39.5	839047
	42	861550
	44	895973
	45.8	791838
	47.8	788696
	49	895974
	53.5	839045

	
≤ 1200	4
1201 – 2400	6
> 2400	8

[14] Guide track 		Nº
		
3200		782921
6400		782922

[16] Handle (200 mm handle length) → CTL_1	
Recessed grip (43 mm distance), not sh. → CTL_1	

[17] Striker, diagram C

	Nº
Screw-on	806824

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[18] Buffer 		Nº
		
17.5		757587

[20] MUL striker		Nº
		
Screw-on	–	793493
Can be routed in	Left	798224
Can be routed in	Right	798245

	
≤ 1200	4
1201 – 2400	6
> 2400	8



[21] Cover cap for MUL striker, only in combination with MUL striker, screw-on.

		Nº
R01.1	Natural silver	819632
R05.3	Medium bronze	819631
R06.2	Jet black	798979
R07.2	Traffic white	808054
		
≤ 1200		4
1201 – 2400		6
> 2400		8

[24] Pin, adjustable, for anti-pushback function

		Nº
Gasket compression adjustable	25	895977
	26	895984
	27	895989
	32	895994
	35.5	858629
	36	895999
	39.5	839049
	42	861551
	44	896002
	49	896005
	53.5	839048

[25] Centre closer, adjustable, for anti-pushback function

		Nº
41	Left	823751
	Right	823752



INFO

L version: order right components.

R version: order left components.

[26] Striker for anti-pushback function

	Nº
Striker for anti-pushback function	810279

[27] Cover cap for striker for anti-pushback function

		Nº
R01.1	Natural silver	828482
R05.3	Medium bronze	828483
R06.2	Jet black	809717
R07.2	Traffic white	819351

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen / SoftClose together with SoftStop on the mullion side / SoftStop on the locking side.

Alternatively:

[37] Rubber buffer → *from page 163*

	Nº
Stopper	800196

[34] Packer, profile-related quantity ^[3]

	Nº
Packer	800197

[*] Operating sequence control set SRH ≥ 1200 mm, profile-related

	Nº
Timber	861110

Contents:

[*]		#
[49]	Bolt	1
[50]	Stop	1
[51]	Countersunk screw, M5 x 20	1
[52]	Anti-lifting device	1

Optional

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side.

	Nº
Stopper	800196

[34] Packer, profile-related quantity ^[4]

	Nº
Packer	800197

[35] Brush holder

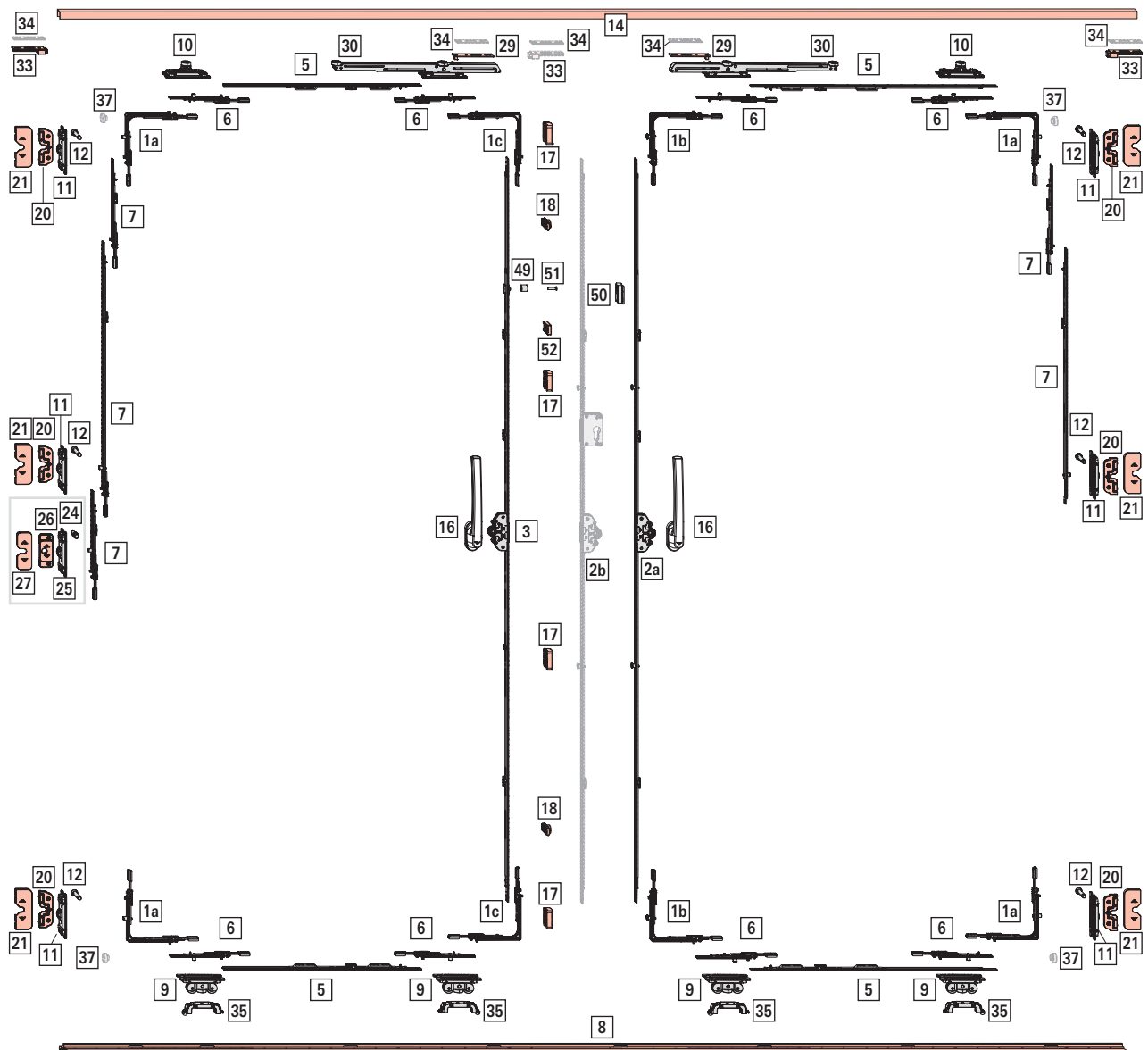
	Nº
Brush holder	809520

	
< 1060	4
≥ 1060	6

[3] Only use the number of packers that is specified in the profile assessment.

[4] Only use the number of packers that is specified in the profile assessment.

4.1.4 Diagram C'





Application range

SRW: 710 – 1500 mm

SRH: 600 – 2500 mm

S.kg: max. 250 kg

[1a] Corner drive	With E cam	4
[1b]	With V cam	2
[1c]	Without cam	2

		Nº
1	E	260275
1	V	260272
–	–	339785

[2a] VT espagnolette → <i>from page 152</i>	1
Alternatively:	
[2b] VT espagnolette, lockable → <i>from page 152</i>	

[3] VT espagnolette, second opening sash → <i>from page 152</i>	1
---	---

Espagnolette extension, (SRH > 1400 mm); not sh.)

				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal	4
---------------------------------------	---

			Nº
200	–	–	308267
344	1	V	572665
480	–	–	245729
590	–	–	603442
790	1	E	603444
990	1	E	603447
1190	1	E	603462
1440	1	E	603466

Size-specific combinations:

First or second opening sash

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442

				Nº
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal	8
---	---

				Nº
130	Y	1	E	764350

[7] CL component, vertical, on the mullion	
--	--

				Nº
200	Y	–	–	308267
	Y	1	E	450821
400	Y	–	–	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

First opening sash:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

Second opening sash:

				Nº
600 – 1200	200 KU	1	E	450821
1201 – 1800	600 KU	1	E	255282
	200 KU	1	E	450821
1801 – 2000	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	1	E	450821
2001 – 2200	400 KU	–	–	297858
	600 KU	1	E	255282
	200 KU	1	E	450821

				Nº
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600 KU	1	E	255282
	200 KU	1	E	450821
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	1	E	450821

[8] Roller track 	
	Nº
3200	807733
6400	807734

[9] Roller unit		
		Nº
41	Left	821686
	Right	823733
		
< 1060		4
≥ 1060		6

**INFO**

L version: order right components.

R version: order left components.

[10] Control unit, on the mullion side and in the centre → <i>from page 161</i>		
Alternatively (on the mullion side):		
Control unit set with Soft function (incl. activator) → <i>from page 161</i>		

		Nº
41	Left	821685
	Right	823730

**INFO**

L version: order right components.

R version: order left components.

[*] Control unit set with Soft function, on the locking side → <i>from page 161</i>		
Alternatively:		
[10] Control unit		

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

**INFO**

L version: order right components.

R version: order left components.

[11] Centre closer, adjustable

		Nº
41	Left	823751
	Right	823752

	
≤ 1200	4
1201 – 2400	6
> 2400	8

**INFO**

L version: order right components.

R version: order left components.

[12] MUL locking cam, adjustable

		Nº
Gasket compression adjustable	25	895955
	26	895966
	27	895970
	32	786728
	34.5	2010069
	35.5	858628
	36	895972
	39.5	839047
	42	861550
	44	895973
	45.8	791838
	47.8	788696
	49	895974
	53.5	839045

	
≤ 1200	4
1201 – 2400	6
> 2400	8

[14] Guide track

	Nº
3200	782921
6400	782922

[16] Handle (200 mm handle length) → CTL_1



Recessed grip (43 mm distance), not sh. → 2
CTL_1

[17] Striker, diagram C		
		Nº
Screw-on		806824
		
≤ 1200		2
1201 – 2400		3
> 2400		4

[18] Buffer 		
		Nº
17.5		757587

[20] MUL striker		
		Nº
Screw-on	–	793493
Can be routed in	Left	798224
Can be routed in	Right	798245
		
≤ 1200		4
1201 – 2400		6
> 2400		8

[21] Cover cap for MUL striker, only in combination with MUL striker, screw-on.		
		Nº
R01.1	Natural silver	819632
R05.3	Medium bronze	819631
R06.2	Jet black	798979
R07.2	Traffic white	808054
		
≤ 1200		4
1201 – 2400		6
> 2400		8

[24] Pin, adjustable, for anti-pushback function 		
		Nº
Gasket compression adjustable	25	895977
	26	895984
	27	895989
	32	895994
	35.5	858629
	36	895999
	39.5	839049
	42	861551
	44	896002
	49	896005
	53.5	839048

[25] Centre closer, adjustable, for anti-push-back function 		
		Nº
41	Left	823751
	Right	823752

[26] Striker for anti-pushback function 		
		Nº
Striker for anti-pushback function		810279

[27] Cover cap for striker for anti-pushback function 		
		Nº
R01.1	Natural silver	828482
R05.3	Medium bronze	828483
R06.2	Jet black	809717
R07.2	Traffic white	819351

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen / SoftClose together with SoftStop on the mullion side / SoftStop on the locking side.  2		
Alternatively:		
[37] Rubber buffer → from page 163		
		Nº
Stopper		800196

[34] Packer; profile-related quantity ^[5]		
		Nº
Packer		800197

[*] Operating sequence control set  1		
SRH ≥ 1200 mm, profile-related		
		Nº
Timber		861110

Contents:

[*]		#
[49]	Bolt	1
[50]	Stop	1
[51]	Countersunk screw, M5 x 20	1
[52]	Anti-lifting device	1

[35] Brush holder		
		Nº
Brush holder		809520
		
< 1060		4
≥ 1060		6

[5] Only use the number of packers that is specified in the profile assessment.

Optional

[33] Stopper , cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side.  1	
	Nº
Stopper	800196
[34] Packer ; profile-related quantity ^[6]	
	Nº
Packer	800197

[6] Only use the number of packers that is specified in the profile assessment.



4.2 PVC

4.2.1 aluplast | smart-slide

4.2.1.1 Diagram A, K





Application range

SRW: 710 – 2000 mm

SRH: 600 – 2500 mm

S.kg: max. 200 kg

[1a] Corner drive		With E cam	🛒 2
[1b]		With V cam	🛒 2
		Nº	
1	E	260275	
1	V	260272	

[2a] VT espagnolette								🛒 1
								Nº
35	600 – 800	690	200	263	–	–	Roto Sil	799045
	801 – 1000	890	200	413	–	–	Roto Sil	798027
	1001 – 1200	1090	200	513	1	V	Roto Sil	798028
	1201 – 1600	1290	200	563	1	V	Roto Sil	798030
	1601 – 1800	1690	200	563	1	V	Roto Sil	798031
	1801 – 2400	1890	200	1000	2	V	Roto Sil	798032
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798033

Espagnolette extension, (SRH > 1400 mm); not sh.)

				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal				🛒 2
			Nº	
200	–	–	308267	
344	1	V	572665	
480	–	–	245729	
590	–	–	603442	
790	1	E	603444	
990	1	E	603447	
1190	1	E	603462	
1440	1	E	603466	

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal					🛒 4
				Nº	
130	Y	1	E	764350	

[7] CL component, vertical, on the mullion				
				Nº
200	Y	–	–	308267
	Y	1	E	450821
400	Y	–	–	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

[9] Roller unit		
		Nº
41	Left	821686
	Right	823733

< 1060	2
≥ 1060	3

[10] Control unit, on the mullion side and in the centre → from page 161
Alternatively (on the mullion side):

Control unit set with Soft function (incl. activator) → *from page 161*  1

		Nº
41	Left	821685
	Right	823730

[*] Control unit set with Soft function, on the locking side → *from page 161*  1
Alternatively:

[10] Control unit

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[12] MUL locking cam

	Nº
32.8	809612

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[15] Striker to prevent incorrect operation 1

	Nº
Striker to prevent incorrect operation	822789

[16] Handle (200 mm handle length) → CTL_1  1
Recessed grip (43 mm distance), not sh. → CTL_1  1

[17] Striker

	Nº
Screw-on	744579

	
≤ 1000	1
1001 – 1800	2
> 1800	3

[18] Buffer 2

	Nº
14	635307

[20] MUL striker

	Nº
Screw-on	793493

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[21] Cover cap for MUL striker, only in combination with MUL striker, screw-on.

		Nº
R01.1	Natural silver	819632
R05.3	Medium bronze	819631
R06.2	Jet black	798979
R07.2	Traffic white	808054

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side. 1

	Nº
Stopper	800196

[34] Packer 1

	Nº
Packer	800197

Alternatively

[2b] VT espagnolette, lockable (alternative to 2a) 1

								Nº
35	1801 – 2400	1890	200	1000	2	V	Roto Sil	798034
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798055

[37] Rubber buffer (alternative to 33) 2

	Nº
14	729179



Optional

[35] Brush holder	
	Nº
Brush holder	809520
	
< 1060	2
≥ 1060	3

4.2.1.2 Diagram A, K – RC 2 / RC 2 N





Application range

SRW: 710 – 2000 mm

SRH: 1072 – 2500 mm

S.kg: max. 200 kg

[1a] Corner drive		With E cam	🛒 2
[1b]		With V cam	🛒 2
		Nº	
1	E	260275	
1	V	260272	

[2a] VT espagnolette									 1
									Nº
35	1001 – 1200	1090	200	513	1	V	Roto Sil	798028	
	1201 – 1600	1290	200	563	1	V	Roto Sil	798030	
	1601 – 1800	1690	200	563	1	V	Roto Sil	798031	
	1801 – 2400	1890	200	1000	2	V	Roto Sil	798032	
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798033	

Espagnolette extension, (SRH > 1400 mm); not sh.)				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal			 2
	 #		Nº
200	–	–	308267
344	1	V	572665
480	–	–	245729
590	–	–	603442
790	1	E	603444
990	1	E	603447
1190	1	E	603462
1440	1	E	603466

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444

				Nº
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal and vertical				 8
				Nº
130	Y	1	E	764350

[7] CL component, vertical, on the mullion				
				Nº
200	Y	1	E	450821
400	N	1	E	255280
	Y	1	E	280346
600	N	1	E	255281

Size-specific combinations:

				Nº
1072 – 1300	200 KU	1	E	450821
1301 – 1500	400	1	E	255280
1501 – 1700	400 KU	1	E	280346
	200 KU	1	E	450821
1701 – 1900	400 KU	1	E	280346
	400	1	E	255280
1901 – 2100	400 KU	1	E	280346
	600	1	E	255281
2101 – 2300	400 KU	1	E	280346
	400 KU	1	E	280346
	400	1	E	255280
2301 – 2500	400 KU	1	E	280346
	400 KU	1	E	280346
	600	1	E	255281

[9] Roller unit  3		
		Nº
41	Left	821686
	Right	823733

[10] Control unit, on the mullion side and in the centre → <i>from page 161</i>		🛒 1-2
Alternatively (on the mullion side):		
Control unit set with Soft function (incl. activator) → <i>from page 161</i>		🛒 1

		Nº	
41	Left	821685	
	Right	823730	

[*] Control unit set with Soft function, on the locking side → <i>from page 161</i>		🛒 1
Alternatively:		

[10] Control unit

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736

	
< 1700	3
1701 – 2100	4
> 2100	5

[12] MUL locking cam

	Nº
	809612

	
< 1700	3
1701 – 2100	4
> 2100	5

[15] SEC striker to prevent incorrect operation

	Nº
	822796

[16] Handle, lockable (200 mm handle length) → CTL_1 Recessed grip (43 mm distance), not sh. → CTL_1

[17] SEC striker

	Nº
	798226
Screw-on	
	
≤ 1800	2
> 1800	3

[18] Buffer

	Nº
	635307

[20] SEC MUL striker

	Nº
	833688
Screw-on	
	
< 1700	3
1701 – 2100	4
> 2100	5

[22] Drilling protection

	Nº
	770965

[24] Pin for anti-pushback function

	Nº
	822393

[25] Centre closer for anti-pushback function

		Nº
41	Left	821687
	Right	823736

INFO
L version: order right components.
R version: order left components.

[26] Striker for anti-pushback function

	Nº
	810279

[27] Cover cap for SEC MUL striker / striker for anti-pushback function

		Nº
		
R01.1	Natural silver	828482
R05.3	Medium bronze	828483
R06.2	Jet black	809717
R07.2	Traffic white	819351
		
< 1700	5	
1701 – 2100	6	
> 2100	7	

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side.

	Nº
	800196

[34] Packer

	Nº
	800197



Alternatively

[2b] VT espagnolette, lockable (alternative to 2a) 									
									Nº
35	1801 – 2400	1890	200	1000	2	V	Roto Sil	798034	
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798055	

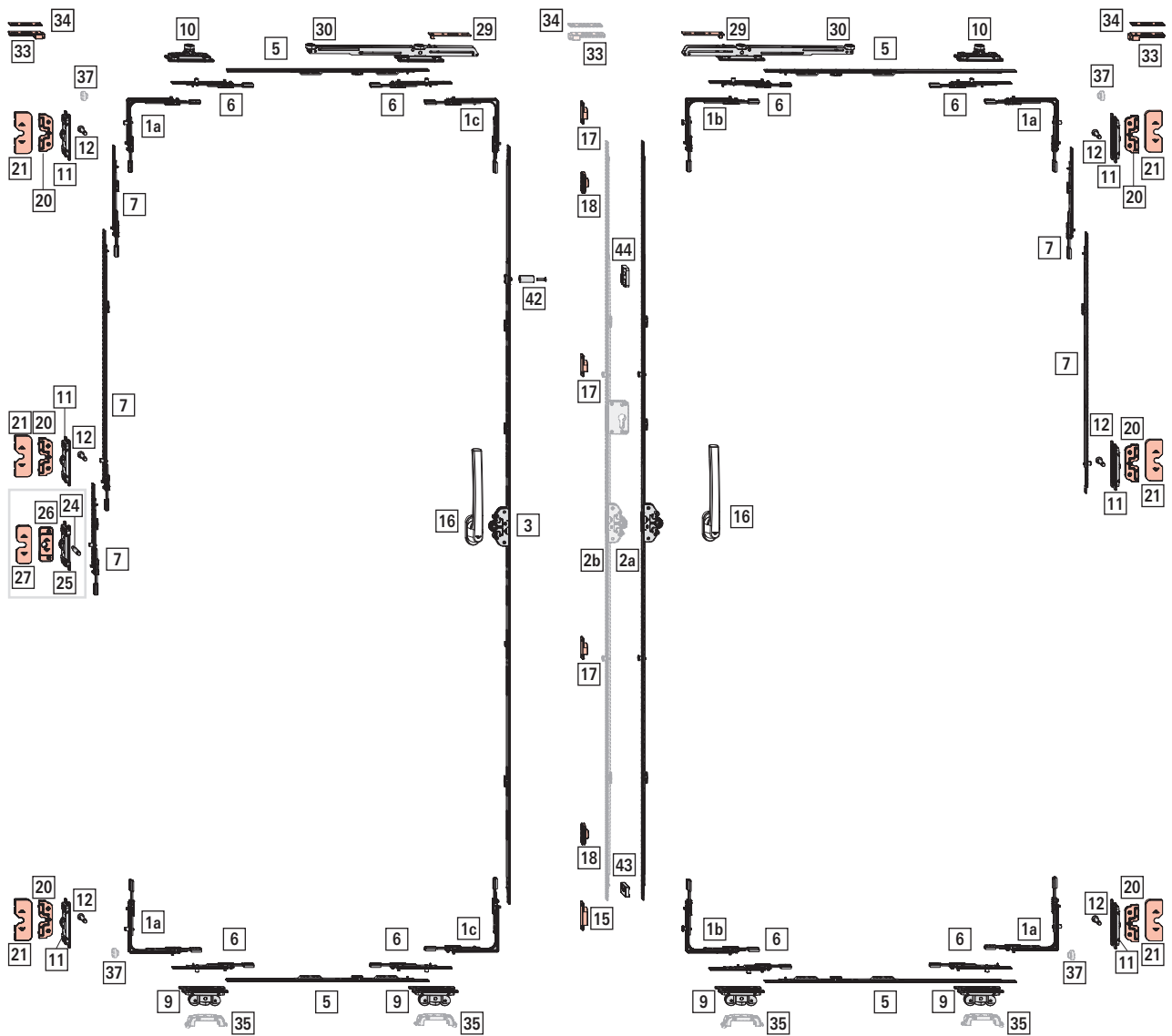
[37] Rubber buffer (alternative to 33) 	
	Nº
14	729179

Optional

[35] Brush holder					3
				Nº	
Brush holder				809520	

SKG** info clip, not sh.						1
				Nº		
SKG** info clip	For clipping onto the gearbox	R07.2	Traffic white	331459		

4.2.1.3 Diagram C





Application range

SRW: 710 – 1500 mm

SRH: 600 – 2500 mm

S.kg: max. 200 kg

[1a] Corner drive	With E cam	4
[1b]	With V cam	2
[1c]	Without cam	2
		Nº
1	E	260275
1	V	260272
–	–	339785

[2a] VT espagnolette  1

								Nº
35	600 – 800	690	200	263	–	–	Roto Sil	799045
	801 – 1000	890	200	413	–	–	Roto Sil	798027
	1001 – 1200	1090	200	513	1	V	Roto Sil	798028
	1201 – 1600	1290	200	563	1	V	Roto Sil	798030
	1601 – 1800	1690	200	563	1	V	Roto Sil	798031
	1801 – 2400	1890	200	1000	2	V	Roto Sil	798032
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798033

[3] VT espagnolette, second opening sash								 1
								Nº
35	600 – 800	690	200	263	–	–	Roto Sil	799045
	801 – 1000	890	200	413	–	–	Roto Sil	798027
	1001 – 1200	1090	200	513	–	–	Roto Sil	809658
	1201 – 1600	1290	200	563	–	–	Roto Sil	809662
	1601 – 1800	1690	200	563	–	–	Roto Sil	809668
	1801 – 2400	1890	200	1000	–	–	Roto Sil	809669
	2401 – 2500	2290	200	1000	–	–	Roto Sil	809653

Espagnolette extension, (SRH > 1400 mm); not sh.)				
				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal			 4
			Nº
200	—	—	308267
344	1	V	572665
480	—	—	245729
590	—	—	603442
790	1	E	603444
990	1	E	603447
1190	1	E	603462

Size-specific combinations:

First or second opening sash

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
≥ 1460	1190	1	E	603462

[6] Centre lock component 130, horizontal				 8
				Nº
130	Y	1	E	764350

[7] CL component, vertical, on the mullion				
				Nº
200	Y	—	—	308267
	Y	1	E	450821
400	Y	—	—	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

First opening sash:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

Second opening sash:

				Nº
600 – 1200	200 KU	1	E	450821
1201 – 1800	600 KU	1	E	255282
	200 KU	1	E	450821
1801 – 2000	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	1	E	450821
2001 – 2200	400 KU	–	–	297858
	600 KU	1	E	255282
	200 KU	1	E	450821
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600 KU	1	E	255282
	200 KU	1	E	450821
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	1	E	450821

[9] Roller unit

		Nº
41	Left	821686
	Right	823733
		
< 1060		4
≥ 1060		6

[10] Control unit, on the mullion side and in the centre → *from page 161*  2-4
 Alternatively (on the mullion side):
 Control unit set with Soft function (incl. activator) → *from page 161*  1-2

		Nº
41	Left	821685
	Right	823730

[*] Control unit set with Soft function, on the locking side → *from page 161*  2
 Alternatively:
 [10] Control unit

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736

	
≤ 1200	4
1201 – 2400	6
> 2400	8

[12] MUL locking cam

	Nº
32.8	809612
	
≤ 1200	4
1201 – 2400	6
> 2400	8

[15] Striker to prevent incorrect operation 1

	Nº
Striker to prevent incorrect operation	822789

[16] Handle (200 mm handle length) → CTL_1  2
Recessed grip (43 mm distance), not sh. →  2
 CTL_1

[17] Striker

	Nº
Screw-on	744579
	
≤ 1000	1
1001 – 1800	2
> 1800	3

[18] Buffer 2

	Nº
14	635307

[20] MUL striker

	Nº
Screw-on	793493
	
≤ 1200	4
1201 – 2400	6
> 2400	8



[21] Cover cap for MUL striker, only in combination with MUL striker, screw-on.

		Nº
R01.1	Natural silver	819632
R05.3	Medium bronze	819631
R06.2	Jet black	798979
R07.2	Traffic white	808054
		
≤ 1200		4
1201 – 2400		6
> 2400		8

[24] Pin for anti-pushback function

	Nº
34	822393

[25] Centre closer for anti-pushback function

		Nº
41	Left	821687
	Right	823736



INFO

L version: order right components.

R version: order left components.

[26] Striker for anti-pushback function

	Nº
Striker for anti-pushback function	810279

[27] Cover cap for striker for anti-pushback function

		Nº
R01.1	Natural silver	828482
R05.3	Medium bronze	828483
R06.2	Jet black	809717
R07.2	Traffic white	819351

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen / SoftClose together with SoftStop on the mullion side / SoftStop on the locking side.

	Nº
Stopper	800196

[34] Packer

	Nº
Packer	800197

[*] Operating sequence control set 1
SRH ≥1200 mm, profile-related

	Nº
31.7	833202
	#
[42] Cam with countersunk screw, M5 x 20	1
[43] Anti-lifting device	1
[44] Striker with buffer	1

Alternatively

[2b] VT espagnolette, lockable (alternative to 2a) → *from page 152* 1

								Nº
35	1801 – 2400	1890	200	1000	2	V	Roto Sil	798034
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798055

[37] Rubber buffer (alternative to 33) 4

	Nº
14	729179

Optional

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the locking side. 1

	Nº
Stopper	800196

[34] Packer

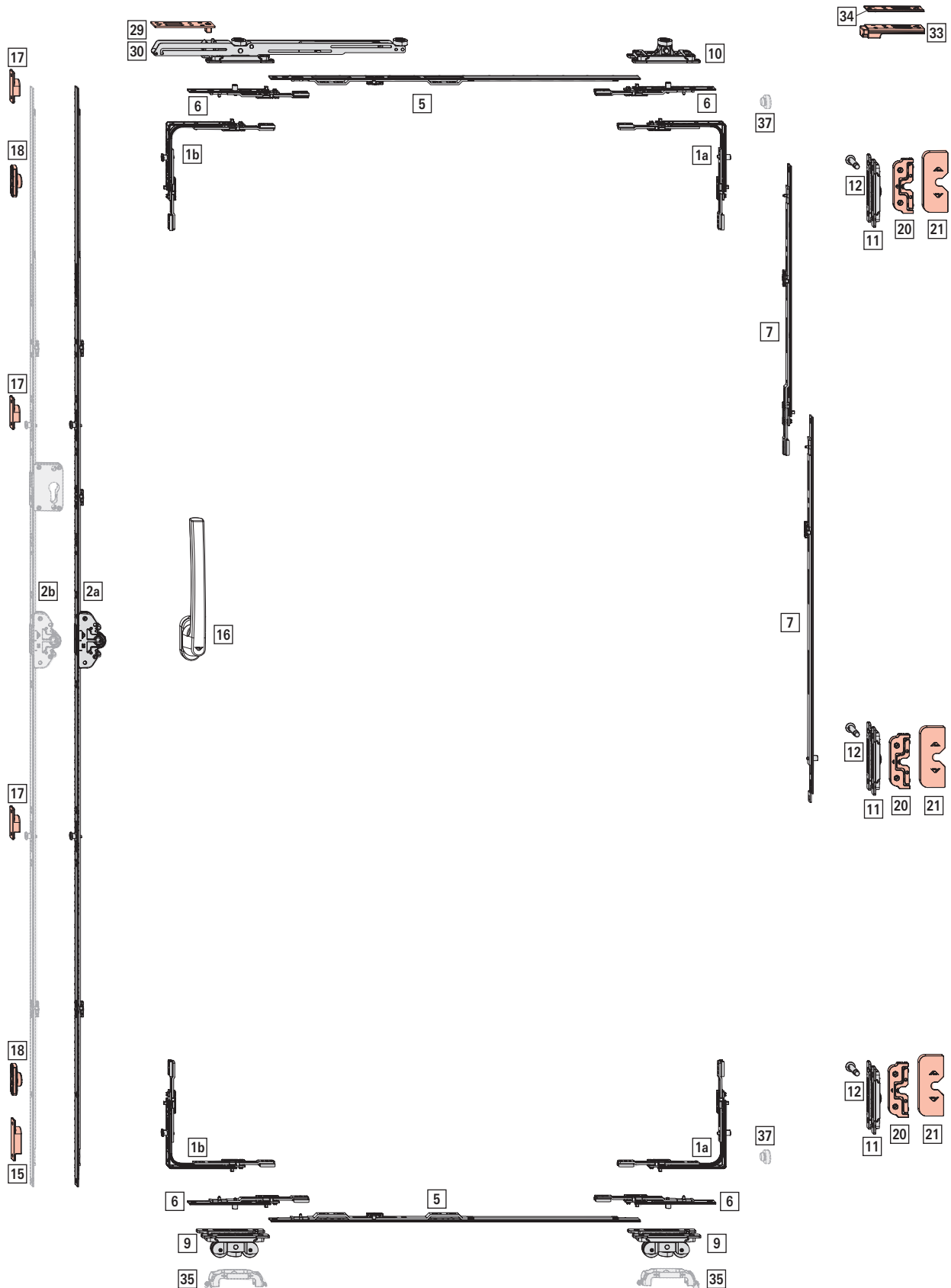
	Nº
Packer	800197

[35] Brush holder

	Nº
Brush holder	809520
	
< 1060	4
≥ 1060	6

4.2.2 aluplast | smart-slide neo

4.2.2.1 Diagram A, K





Application range

SRW: 710 – 2000 mm

SRH: 600 – 2500 mm

S.kg: max. 250 kg

[1a] Corner drive		With E cam	🛒 2
[1b]		With V cam	🛒 2
		Nº	
1	E	260275	
1	V	260272	

[2a] VT espagnolette								🛒 1
							Nº	
35	600 – 800	690	200	263	–	–	Roto Sil	799045
	801 – 1000	890	200	413	–	–	Roto Sil	798027
	1001 – 1200	1090	200	513	1	V	Roto Sil	798028
	1201 – 1600	1290	200	563	1	V	Roto Sil	798030
	1601 – 1800	1690	200	563	1	V	Roto Sil	798031
	1801 – 2400	1890	200	1000	2	V	Roto Sil	798032
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798033

Espagnolette extension, (SRH > 1400 mm); not sh.)				
				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal				🛒 2
			Nº	
200	–	–	308267	
344	1	V	572665	
480	–	–	245729	
590	–	–	603442	
790	1	E	603444	
990	1	E	603447	
1190	1	E	603462	
1440	1	E	603466	

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal					🛒 4
				Nº	
130	Y	1	E	764350	

[7] CL component, vertical, on the mullion				
				Nº
200	Y	–	–	308267
	Y	1	E	450821
400	Y	–	–	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

[9] Roller unit		
		Nº
41	Left	821686
	Right	823733

< 1060	2
≥ 1060	3

[10] Control unit, on the mullion side and in the centre		🛒 1 – 2
Alternatively (on the mullion side):		
Control unit set with Soft function →		🛒 1
from page 161		

Activator for Soft function can be used with an asymmetrical screw fixing → *from page 163*



		Nº
41	Left	821685
	Right	823730

[*] Control unit set with Soft function, on the locking side → *from page 161*



Alternatively:

[10] Control unit

Contents:



#

[29]	Activator (also order an activator for an asymmetrical screw fixing → <i>from page 163</i>)	1
[30]	Control unit with Soft function	1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736
≤ 1200		2
1201 – 2400		3
> 2400		4

[12] MUL locking cam

	Nº
39.5	2009488
≤ 1200	2
1201 – 2400	3
> 2400	4

[15] Striker to prevent incorrect operation



Nº

Striker to prevent incorrect operation	822789
--	--------

[16] Handle (200 mm handle length) → CTL_1



[17] Striker

	Nº
Screw-on	744579
≤ 1000	1
1001 – 1800	2
> 1800	3

[18] Buffer



Nº

14	635307
----	--------

[20] MUL striker



Nº

Screw-on	793493
----------	--------



≤ 1200	2
1201 – 2400	3
> 2400	4

[21] Cover cap for MUL striker, only in combination with MUL striker, screw-on.



Nº

R01.1	Natural silver	819632
R05.3	Medium bronze	819631
R06.2	Jet black	798979
R07.2	Traffic white	808054



≤ 1200	2
1201 – 2400	3
> 2400	4

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side.



Nº

Stopper	2027526
---------	---------

[34] Packer for an asymmetrical screw fixing



Nº

Packer	2027527
--------	---------

Alternatively

[2b] VT espagnolette, lockable (alternative to 2a)



Nº

35	1801 – 2400	1890	200	1000	2	V	Roto Sil	798034
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798055

[37] Rubber buffer (alternative to 33)



Nº

14	729179
----	--------



Optional

[35] Brush holder	
	Nº
Brush holder	809520
	
< 1060	2
≥ 1060	3

4.2.2.2 Diagram A, K – RC 2 / RC 2 N





Application range

SRW: 710 – 2000 mm

SRH: 1072 – 2500 mm

S.kg: max. 250 kg

[1a] Corner drive		With E cam	🛒 2
[1b]		With V cam	🛒 2
		Nº	
1	E	260275	
1	V	260272	

[2a] VT espagnolette									 1
									Nº
35	1001 – 1200	1090	200	513	1	V	Roto Sil	798028	
	1201 – 1600	1290	200	563	1	V	Roto Sil	798030	
	1601 – 1800	1690	200	563	1	V	Roto Sil	798031	
	1801 – 2400	1890	200	1000	2	V	Roto Sil	798032	
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798033	

Espagnolette extension, (SRH > 1400 mm); not sh.)				
				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal			 2
	 [#]		Nº
200	–	–	308267
344	1	V	572665
480	–	–	245729
590	–	–	603442
790	1	E	603444
990	1	E	603447
1190	1	E	603462
1440	1	E	603466

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444

				Nº
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal and vertical				 8
				Nº
130	Y	1	E	764350

[7] CL component, vertical, on the mullion				
				Nº
200	Y	1	E	450821
400	N	1	E	255280
	Y	1	E	280346
600	N	1	E	255281

Size-specific combinations:

				Nº
1072 – 1300	200 KU	1	E	450821
1301 – 1500	400	1	E	255280
1501 – 1700	400 KU	1	E	280346
	200 KU	1	E	450821
1701 – 1900	400 KU	1	E	280346
	400	1	E	255280
1901 – 2100	400 KU	1	E	280346
	600	1	E	255281
2101 – 2300	400 KU	1	E	280346
	400 KU	1	E	280346
	400	1	E	255280
2301 – 2500	400 KU	1	E	280346
	400 KU	1	E	280346
	600	1	E	255281

[9] Roller unit  3		
		Nº
41	Left	821686
	Right	823733

[10] Control unit, on the mullion side and in the centre		🛒 1 – 2
Alternatively (on the mullion side):		
Control unit set with Soft function →		🛒 1
from page 161		
Activator for Soft function can be used with an asymmetrical screw fixing →		🛒 1
from page 163		

		Nº	
41	Left	821685	
	Right	823730	

[*] Control unit set with Soft function, on the locking side → from page 161		🛒 1
--	--	-----

Alternatively:
[10] Control unit

Contents:

[*]		#
[29]	Activator (also order an activator for an asymmetrical screw fixing → <i>from page 163.</i>)	1
[30]	Control unit with Soft function	1

[11] Centre closer		
		Nº
41	Left	821687
	Right	823736
		
< 1700		3
1701 – 2100		4
> 2100		5

[12] MUL locking cam		
		Nº
39.5		2009488
		
< 1700		3
1701 – 2100		4
> 2100		5

[15] SEC striker to prevent incorrect operation 		
		Nº
SEC striker to prevent incorrect operation		822796

[16] Handle, lockable (200 mm handle length) → CTL_1 		
Recessed grip (43 mm distance), not sh. → CTL_1 		

[17] SEC striker		
		Nº
Screw-on		798226
		
≤ 1800		2
> 1800		3

[18] Buffer 		
		Nº
14		635307

[20] SEC MUL striker		
		Nº
Screw-on		833688
		
< 1700		3
1701 – 2100		4
> 2100		5

[22] Drilling protection 		
		Nº
Drilling protection		770965

[24] Pin for anti-pushback function 		
		Nº
39.5		2009506

[25] Centre closer for anti-pushback function 		
		Nº
41	Left	821687
	Right	823736

INFO
L version: order right components.
R version: order left components.

[26] Striker for anti-pushback function 		
		Nº
Striker for anti-pushback function		810279

[27] Cover cap for SEC MUL striker / striker for anti-pushback function		
		Nº
R01.1	Natural silver	828482
R05.3	Medium bronze	828483
R06.2	Jet black	809717
R07.2	Traffic white	819351

		
< 1700		5
1701 – 2100		6
> 2100		7

[33] Stopper for an asymmetrical screw fixing, cannot be used in conjunction with a control unit with SoftOpen and SoftStop on the mul-lion side. 		
		Nº
Stopper		2027526



[34] Packer for an asymmetrical screw fixing 									
									
								Nº	
Packer								2027527	

Alternatively

[2b] VT espagnolette, lockable (alternative to 2a) 									
        									
35	1801 – 2400	1890	200	1000	2	V	Roto Sil	798034	
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798055	

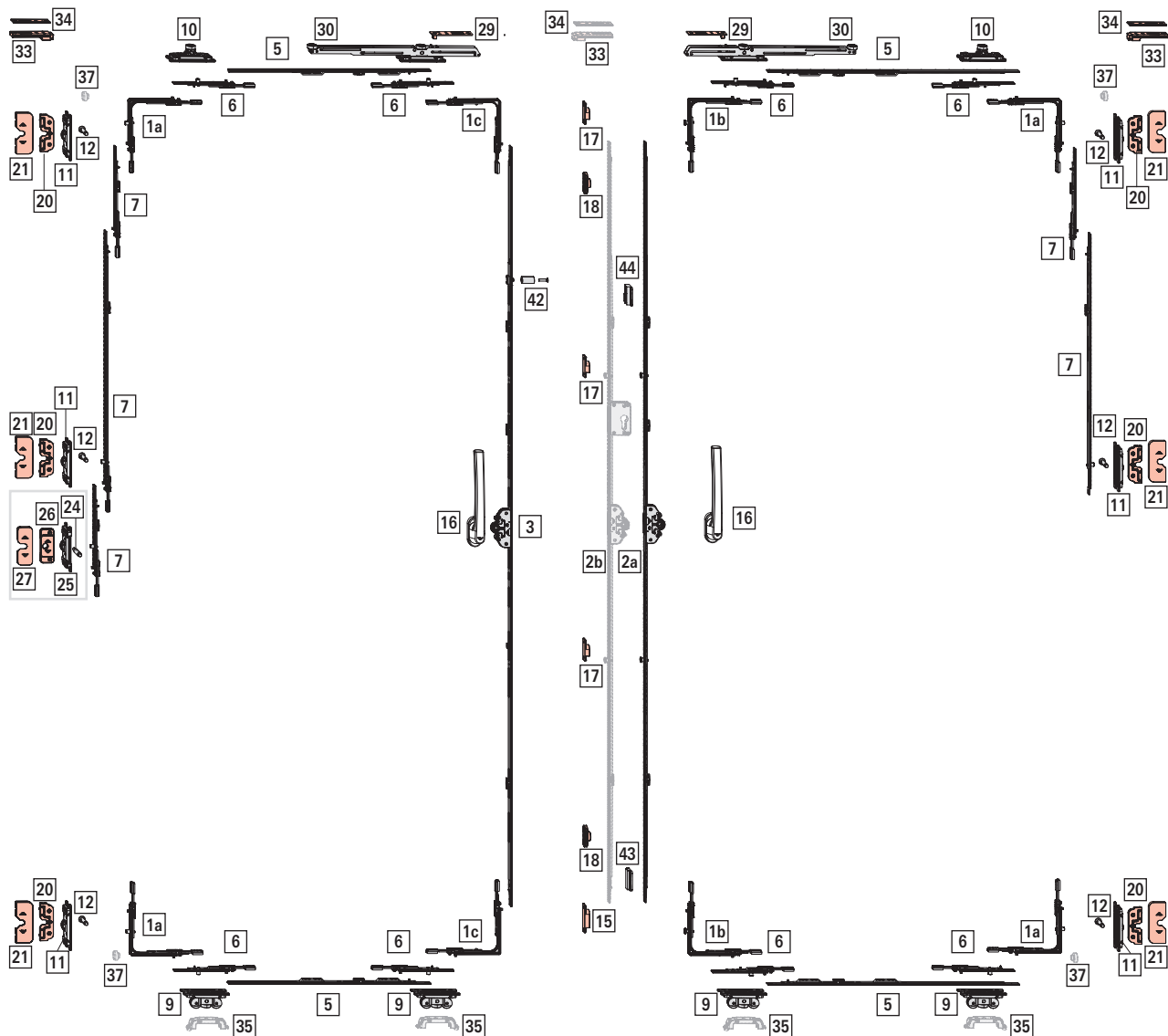
[37] Rubber buffer (alternative to 33) 									
									
								Nº	
14								729179	

Optional

[35] Brush holder 									
									
								Nº	
Brush holder								809520	

SKG** info clip, not sh. 									
   									
								Nº	
SKG** info clip	For clipping onto the gearbox			R07.2	Traffic white	331459			

4.2.2.3 Diagram C





Application range

SRW: 710 – 1500 mm

SRH: 600 – 2500 mm

S.kg: max. 250 kg

[1a] Corner drive	With E cam	4
[1b]	With V cam	2
[1c]	Without cam	2
		Nº
1	E	260275
1	V	260272
–	–	339785

[2a] VT espagnolette  1

								Nº
35	600 – 800	690	200	263	–	–	Roto Sil	799045
	801 – 1000	890	200	413	–	–	Roto Sil	798027
	1001 – 1200	1090	200	513	1	V	Roto Sil	798028
	1201 – 1600	1290	200	563	1	V	Roto Sil	798030
	1601 – 1800	1690	200	563	1	V	Roto Sil	798031
	1801 – 2400	1890	200	1000	2	V	Roto Sil	798032
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798033

[3] VT espagnolette, second opening sash								 1
								Nº
35	600 – 800	690	200	263	–	–	Roto Sil	799045
	801 – 1000	890	200	413	–	–	Roto Sil	798027
	1001 – 1200	1090	200	513	–	–	Roto Sil	809658
	1201 – 1600	1290	200	563	–	–	Roto Sil	809662
	1601 – 1800	1690	200	563	–	–	Roto Sil	809668
	1801 – 2400	1890	200	1000	–	–	Roto Sil	809669
	2401 – 2500	2290	200	1000	–	–	Roto Sil	809653

Espagnolette extension, (SRH > 1400 mm); not sh.)				
				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal			 4
			Nº
200	—	—	308267
344	1	V	572665
480	—	—	245729
590	—	—	603442
790	1	E	603444
990	1	E	603447
1190	1	E	603462

Size-specific combinations:

First or second opening sash

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
≥ 1460	1190	1	E	603462

[6] Centre lock component 130, horizontal				 8
				Nº
130	Y	1	E	764350

[7] CL component, vertical, on the mullion				
				Nº
200	Y	—	—	308267
	Y	1	E	450821
400	Y	—	—	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

First opening sash:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

Second opening sash:

				Nº
600 – 1200	200 KU	1	E	450821
1201 – 1800	600 KU	1	E	255282
	200 KU	1	E	450821
1801 – 2000	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	1	E	450821
2001 – 2200	400 KU	–	–	297858
	600 KU	1	E	255282
	200 KU	1	E	450821
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600 KU	1	E	255282
	200 KU	1	E	450821
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	1	E	450821

[9] Roller unit

		Nº
41	Left	821686
	Right	823733
		
< 1060		4
≥ 1060		6

[10] Control unit, on the mullion side and in the centre  2-4
Alternatively (on the mullion side):
Control unit set with Soft function → *from*  2 *page 161*
Activator for Soft function can be used with an asymmetrical screw fixing →  2 *from page 163*

		Nº
41	Left	821685
	Right	823730

[*] Control unit set with Soft function, on the locking side → *from page 161*  2
Alternatively:
[10] Control unit

Contents:

		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736

	
≤ 1200	4
1201 – 2400	6
> 2400	8

[12] MUL locking cam

	Nº
39.5	2009488

	
≤ 1200	4
1201 – 2400	6
> 2400	8

[15] Striker to prevent incorrect operation 1

	Nº
Striker to prevent incorrect operation	822789

[16] Handle (200 mm handle length) → CTL_1  2
Recessed grip (43 mm distance), not sh. →  2 CTL_1

[17] Striker

	Nº
Screw-on	744579

	
≤ 1000	1
1001 – 1800	2
> 1800	3

[18] Buffer 2

	Nº
14	635307

[20] MUL striker

	Nº
Screw-on	793493

	
≤ 1200	4
1201 – 2400	6
> 2400	8



[21] Cover cap for MUL striker, only in combination with MUL striker, screw-on.

		Nº
R01.1	Natural silver	819632
R05.3	Medium bronze	819631
R06.2	Jet black	798979
R07.2	Traffic white	808054
		
≤ 1200		4
1201 – 2400		6
> 2400		8

[24] Pin for anti-pushback function

	Nº
39.5	2009506

[25] Centre closer for anti-pushback function

		Nº
41	Left	821687
	Right	823736



INFO

L version: order right components.

R version: order left components.

[26] Striker for anti-pushback function

	Nº
Striker for anti-pushback function	810279

[27] Cover cap for striker for anti-pushback function

		Nº
R01.1	Natural silver	828482
R05.3	Medium bronze	828483
R06.2	Jet black	809717
R07.2	Traffic white	819351

[33] Stopper for an asymmetrical screw fixing, cannot be used in conjunction with a control unit with SoftOpen / SoftClose together with SoftStop on the mullion side / SoftStop on the locking side.

	Nº
Stopper	2027526

[34] Packer for an asymmetrical screw fixing

	Nº
Packer	2027527

[*] Operating sequence control set SRH ≥1200 mm, profile-related

	Nº
27.5	2027961
	#
[42] Cam with countersunk screw, M5 x 20	1
[43] Anti-lifting device	1
[44] Striker with buffer	1

Alternatively

[2b] VT espagnolette, lockable (alternative to 2a) → *from page 152*

							Nº
35	1801 – 2400	1890	200	1000	2	V	Roto Sil 798034
	2401 – 2500	2290	200	1000	2	V	Roto Sil 798055

[37] Rubber buffer (alternative to 33)

	Nº
14	729179

Optional

[33] Stopper for an asymmetrical screw fixing, cannot be used in conjunction with a control unit with SoftOpen and SoftStop on the locking side.

	Nº
Stopper	2027526

[34] Packer for an asymmetrical screw fixing

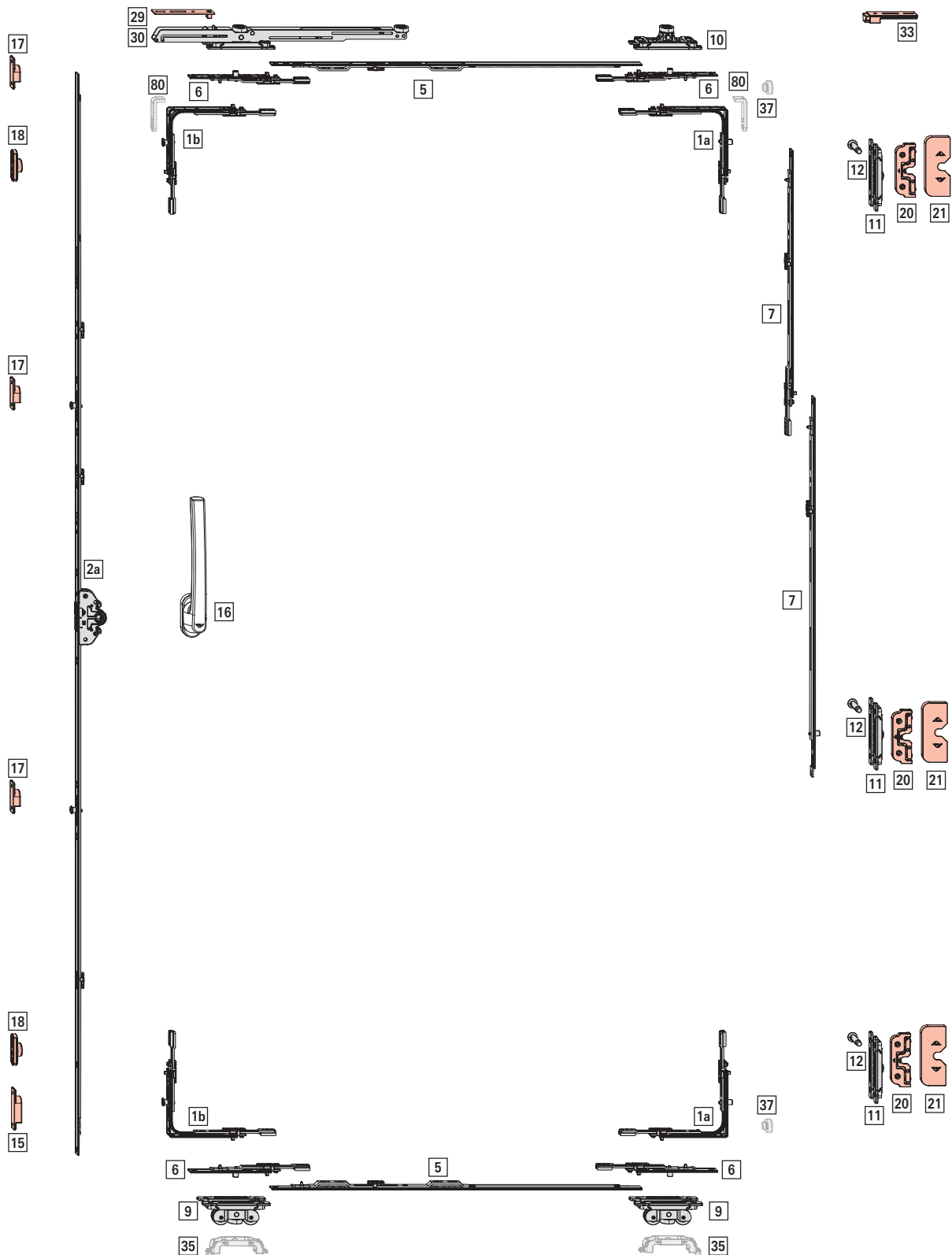
	Nº
Packer	2027527

[35] Brush holder

	Nº
Brush holder	809520
	
< 1060	4
≥ 1060	6

4.2.3 GEALAN | SMOOVIO

4.2.3.1 Diagram A, K





Application range

SRW: 710 – 2000 mm

SRH: 600 – 2500 mm

S.kg: max. 200 kg

[1a] Corner drive		With E cam	 2
[1b]		With V cam	 2
		Nº	
1	E	260275	
1	V	260272	

[2a] VT espagnolette								 1
								Nº
35	600 – 800	690	200	263	–	–	Roto Sil	799045
	801 – 1000	890	200	413	–	–	Roto Sil	798027
	1001 – 1200	1090	200	513	1	V	Roto Sil	798028
	1201 – 1600	1290	200	563	1	V	Roto Sil	798030
	1601 – 1800	1690	200	563	1	V	Roto Sil	798031
	1801 – 2400	1890	200	1000	2	V	Roto Sil	798032
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798033

Espagnolette extension, (SRH > 1400 mm); not sh.)				
				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal				 2
			Nº	
200	–	–	308267	
344	1	V	572665	
480	–	–	245729	
590	–	–	603442	
790	1	E	603444	
990	1	E	603447	
1190	1	E	603462	
1440	1	E	603466	

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal					 4
				Nº	
130	Y	1	E	764350	

[7] CL component, vertical, on the mullion				
				Nº
200	Y	–	–	308267
	Y	1	E	450821
400	Y	–	–	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

[9] Roller unit		
		Nº
41	Left	821686
	Right	823733

	
< 1060	2
≥ 1060	3

[10] Control unit, on the mullion side and in the centre → <i>from page 161</i>		 1-2
Alternatively (on the mullion side):		

Control unit set with Soft function (incl. activator) → *from page 161* 

		Nº
41	Left	821685
	Right	823730

[*] **Control unit set with Soft function**, on the locking side → *from page 161* 
 Alternatively:
[10] Control unit

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[12] MUL locking cam

	Nº
38.4	809614

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[15] Striker to prevent incorrect operation

	Nº
Striker to prevent incorrect operation	822789

[16] Handle (200 mm handle length) → CTL_1 
Recessed grip (43 mm distance), not sh. → CTL_1 

[17] Striker

	Nº
Screw-on	744579

	
≤ 1000	1
1001 – 1800	2
> 1800	3

[18] Buffer

	Nº
14	635307

[20] MUL striker

	Nº
Screw-on	793493

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[21] Cover cap for MUL striker, only in combination with MUL striker, screw-on.

		Nº
R01.1	Natural silver	819632
R05.3	Medium bronze	819631
R06.2	Jet black	798979
R07.2	Traffic white	808054

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side. 

	Nº
Stopper	800196

Alternatively

[2b] VT espagnolette, lockable (alternative to 2a)

								Nº
35	1801 – 2400	1890	200	1000	2	V	Roto Sil	798034
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798055

[37] Rubber buffer (alternative to 33)

	Nº
14	729179

Optional

[35] Brush holder

	Nº
Brush holder	809520

	
< 1060	2
≥ 1060	3



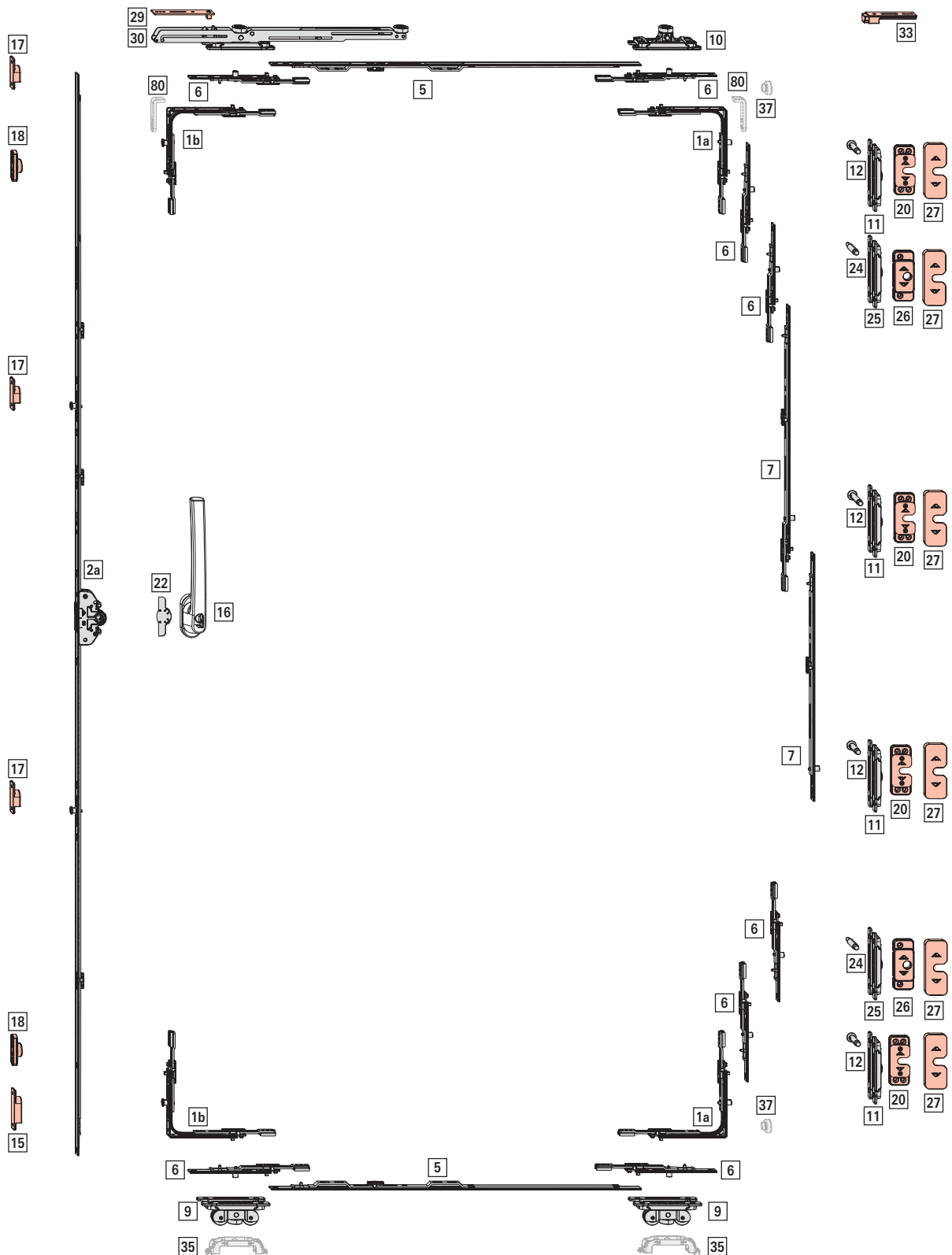
[80] **Tilt protection device**; for application ranges SRH:SRW = > 2:1 up to max. 3:1; can only be used without control unit with Soft function.  2



Nº

Tilt protection device	897049
------------------------	--------

4.2.3.2 Diagram A, K – RC 2 / RC 2 N





Application range

SRW: 710 – 2000 mm

SRH: 1072 – 2500 mm

S.kg: max. 200 kg

[1a] Corner drive		With E cam	🛒 2
[1b]		With V cam	🛒 2
			Nº
1	E		260275
1	V		260272

[2a] VT espagnolette								🛒 1
							Nº	
35	1001 – 1200	1090	200	513	1	V	Roto Sil	798028
	1201 – 1600	1290	200	563	1	V	Roto Sil	798030
	1601 – 1800	1690	200	563	1	V	Roto Sil	798031
	1801 – 2400	1890	200	1000	2	V	Roto Sil	798032
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798033

Espagnolette extension, (SRH > 1400 mm); not sh.)				
				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal				🛒 2
			Nº	
200	–	–	308267	
344	1	V	572665	
480	–	–	245729	
590	–	–	603442	
790	1	E	603444	
990	1	E	603447	
1190	1	E	603462	
1440	1	E	603466	

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444

				Nº
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal and vertical				🛒 8
				Nº
130	Y	1	E	764350

[7] CL component, vertical, on the mullion				
				Nº
200	Y	1	E	450821
400	N	1	E	255280
	Y	1	E	280346
600	N	1	E	255281

Size-specific combinations:

				Nº
1072 – 1300	200 KU	1	E	450821
1301 – 1500	400	1	E	255280
1501 – 1700	400 KU	1	E	280346
	200 KU	1	E	450821
1701 – 1900	400 KU	1	E	280346
	400	1	E	255280
1901 – 2100	400 KU	1	E	280346
	600	1	E	255281
2101 – 2300	400 KU	1	E	280346
	400 KU	1	E	280346
	400	1	E	255280
2301 – 2500	400 KU	1	E	280346
	400 KU	1	E	280346
	600	1	E	255281

[9] Roller unit			🛒 3
		Nº	
41	Left	821686	
	Right	823733	

[10] Control unit, on the mullion side and in the centre → <i>from page 161</i>			🛒 1-2
Alternatively (on the mullion side):			
Control unit set with Soft function (incl. activator) → <i>from page 161</i>			🛒 1

		Nº
41	Left	821685
	Right	823730

[*] Control unit set with Soft function, on the locking side → <i>from page 161</i>			🛒 1
Alternatively:			

[10] Control unit

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736

	
< 1700	3
1701 – 2100	4
> 2100	5

[12] MUL locking cam

	Nº
38.4	809614

	
< 1700	3
1701 – 2100	4
> 2100	5

[15] SEC striker to prevent incorrect operation

	Nº
SEC striker to prevent incorrect operation	822796

[16] Handle, lockable (200 mm handle length) → CTL_1 Recessed grip (43 mm distance), not sh. → CTL_1

[17] SEC striker

	Nº
Screw-on	798226
	
≤ 1800	2
> 1800	3

[18] Buffer

	Nº
14	635307

[20] SEC MUL striker

	Nº
Screw-on	828318
	
< 1700	3
1701 – 2100	4
> 2100	5

[22] Drilling protection

	Nº
Drilling protection	770965

[24] Pin for anti-pushback function

	Nº
38	820048

[25] Centre closer for anti-pushback function

		Nº
41	Left	821687
	Right	823736

INFO
L version: order right components.
R version: order left components.

[26] Striker for anti-pushback function

	Nº
Striker for anti-pushback function	810279

[27] Cover cap for SEC MUL striker / striker for anti-pushback function

		Nº
R01.1	Natural silver	828482
R05.3	Medium bronze	828483
R06.2	Jet black	809717
R07.2	Traffic white	819351
<hr/>		
		
< 1700		5
1701 – 2100		6
> 2100		7

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side.

	Nº
Stopper	800196



Alternatively

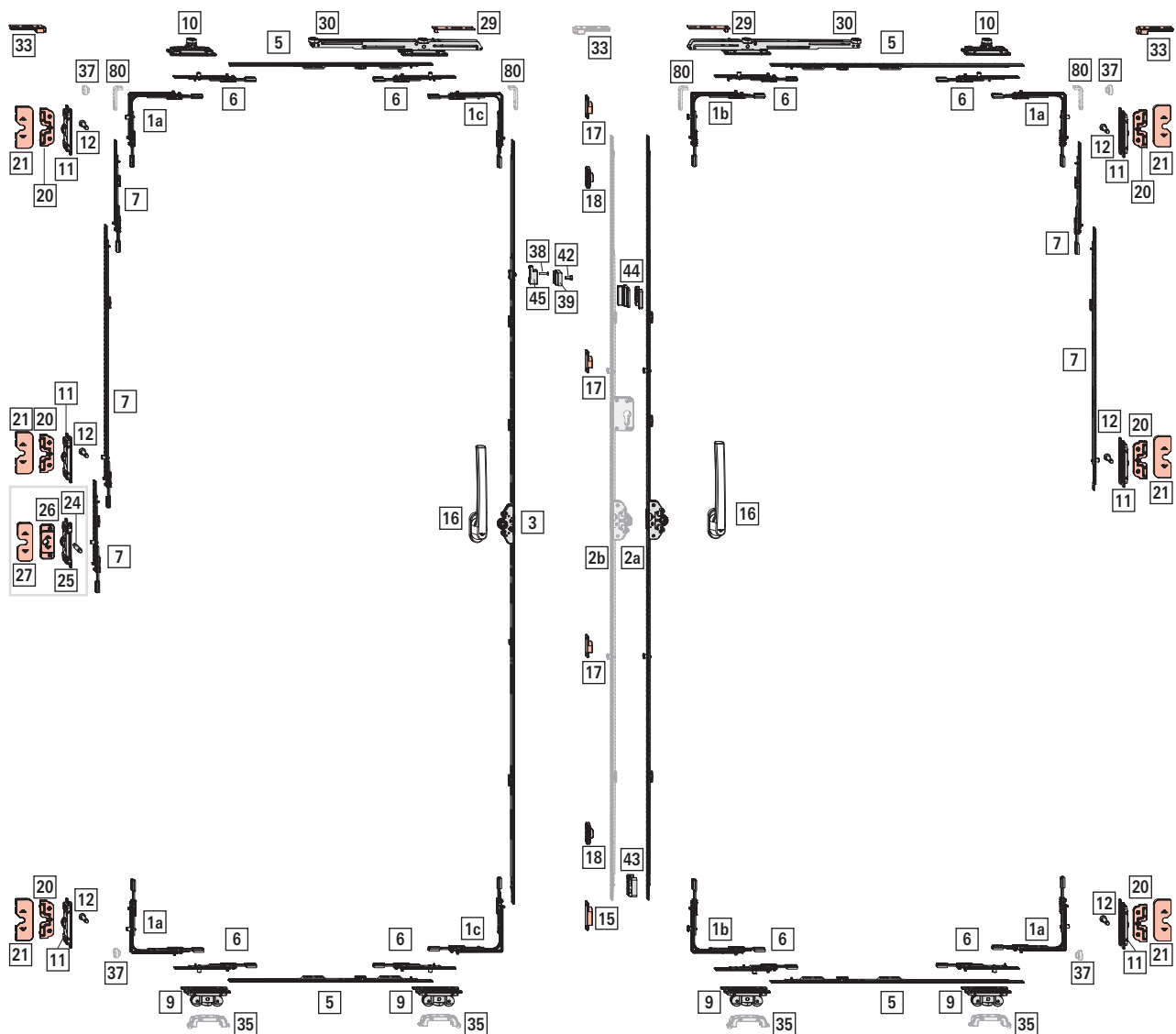
[2b] VT espagnolette, lockable (alternative to 2a)									 1
								Nº	
35	1801 – 2400	1890	200	1000	2	V	Roto Sil	798034	
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798055	

[37] Rubber buffer (alternative to 33)									 2	
									Nº	
14									729179	

Optional

[35] Brush holder				3
				Nº
Brush holder				809520
[80] Tilt protection device; for application ranges SRH:SRW = > 2:1 up to max. 3:1; can only be used without control unit with Soft function.				2
				Nº
Tilt protection device				897049
SKG** info clip, not sh.				1
				Nº
SKG** info clip	For clipping onto the gearbox	R07.2	Traffic white	331459

4.2.3.3 Diagram C





Application range

SRW: 710 – 1500 mm

SRH: 600 – 2500 mm

S.kg: max. 200 kg

[1a] Corner drive	With E cam	4
[1b]	With V cam	2
[1c]	Without cam	2
		Nº
1	E	260275
1	V	260272
–	–	339785

[2a] VT espagnolette  1

								Nº
35	600 – 800	690	200	263	–	–	Roto Sil	799045
	801 – 1000	890	200	413	–	–	Roto Sil	798027
	1001 – 1200	1090	200	513	1	V	Roto Sil	798028
	1201 – 1600	1290	200	563	1	V	Roto Sil	798030
	1601 – 1800	1690	200	563	1	V	Roto Sil	798031
	1801 – 2400	1890	200	1000	2	V	Roto Sil	798032
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798033

[3] VT espagnolette, second opening sash								 1
							Nº	
25	600 – 800	690	200	263	–	–	–	793942
	801 – 1000	890	200	413	–	–	Roto Sil	793943
	1001 – 1200	1090	200	513	–	–	Roto Sil	809691
	1201 – 1600	1290	200	563	–	–	Roto Sil	809692
	1601 – 1800	1690	200	563	–	–	Roto Sil	809694
	1801 – 2400	1890	200	1000	–	–	Roto Sil	809695
	2401 – 2500	2290	200	1000	–	–	Roto Sil	809697

Espagnolette extension, (SRH > 1400 mm); not sh.)				
				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal			 4
			Nº
200	—	—	308267
344	1	V	572665
480	—	—	245729
590	—	—	603442
790	1	E	603444
990	1	E	603447
1190	1	E	603462

Size-specific combinations:

First or second opening sash

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
≥ 1460	1190	1	E	603462

[6] Centre lock component 130, horizontal				 8
				Nº
130	Y	1	E	764350

[7] CL component, vertical, on the mullion				
				Nº
200	Y	—	—	308267
	Y	1	E	450821
400	Y	—	—	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

First opening sash:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

Second opening sash:

				Nº
600 – 1200	200 KU	1	E	450821
1201 – 1800	600 KU	1	E	255282
	200 KU	1	E	450821
1801 – 2000	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	1	E	450821
2001 – 2200	400 KU	–	–	297858
	600 KU	1	E	255282
	200 KU	1	E	450821
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600 KU	1	E	255282
	200 KU	1	E	450821
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	1	E	450821

[9] Roller unit

		Nº
41	Left	821686
	Right	823733
		
< 1060		4
≥ 1060		6

[10] Control unit, on the mullion side and in the centre → *from page 161*  2-4
Alternatively (on the mullion side):
Control unit set with Soft function (incl. activator) → *from page 161*  1-2

		Nº
41	Left	821685
	Right	823730

[*] Control unit set with Soft function, on the locking side → *from page 161*  2
Alternatively:
[10] Control unit

Contents:

[*]		#
[29] Activator		1
[30] Control unit with Soft function		1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736
		
≤ 1200		4
1201 – 2400		6
> 2400		8

[12] MUL locking cam

	Nº
38.4	809614
	
≤ 1200	4
1201 – 2400	6
> 2400	8

[15] Striker to prevent incorrect operation

	Nº
Striker to prevent incorrect operation	822789

[16] Handle (200 mm handle length) → CTL_1  2
Recessed grip (43 mm distance), not sh. →  2
CTL_1

[17] Striker

	Nº
Screw-on	744579
<hr/>	
	
≤ 1000	1
1001 – 1800	2
> 1800	3

[18] Buffer

	Nº
14	635307

[20] MUL striker

	Nº
Screw-on	793493
	
≤ 1200	 4
1201 – 2400	6
> 2400	8



[21] Cover cap for MUL striker, only in combination with MUL striker, screw-on.

		Nº
R01.1	Natural silver	819632
R05.3	Medium bronze	819631
R06.2	Jet black	798979
R07.2	Traffic white	808054
		
≤ 1200		4
1201 – 2400		6
> 2400		8

[24] Pin for anti-pushback function

	Nº
38	820048

[25] Centre closer for anti-pushback function

		Nº
41	Left	821687
	Right	823736



INFO

L version: order right components.

R version: order left components.

[26] Striker for anti-pushback function

	Nº
Striker for anti-pushback function	810279

[27] Cover cap for striker for anti-pushback function

		Nº
R01.1	Natural silver	828482
R05.3	Medium bronze	828483
R06.2	Jet black	809717
R07.2	Traffic white	819351

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen / SoftClose together with SoftStop on the mullion side / SoftStop on the locking side.

	Nº
Stopper	800196

[*] Operating sequence control set SRH ≥ 1200 mm, profile-related

	Gealan Smoovio	Nº
PVC	Gealan Smoovio	2009503

		#
[38]	Countersunk screw, M5 x 20	1
[39]	Stop, second opening sash	1
[42]	Cylinder screw	1
[43]	Anti-lifting device	1
[44]	Stop incl. packer, first opening sash	1
[45]	Adapter	1

Alternatively

[2b] VT espagnolette, lockable (alternative to 2a)

							Nº
35	1801 – 2400	1890	200	1000	2	V	Roto Sil 798034
	2401 – 2500	2290	200	1000	2	V	Roto Sil 798055

[37] Rubber buffer (alternative to 33)

	Nº
14	729179

Optional

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the locking side.

	Nº
Stopper	800196

[35] Brush holder

	Nº
Brush holder	809520

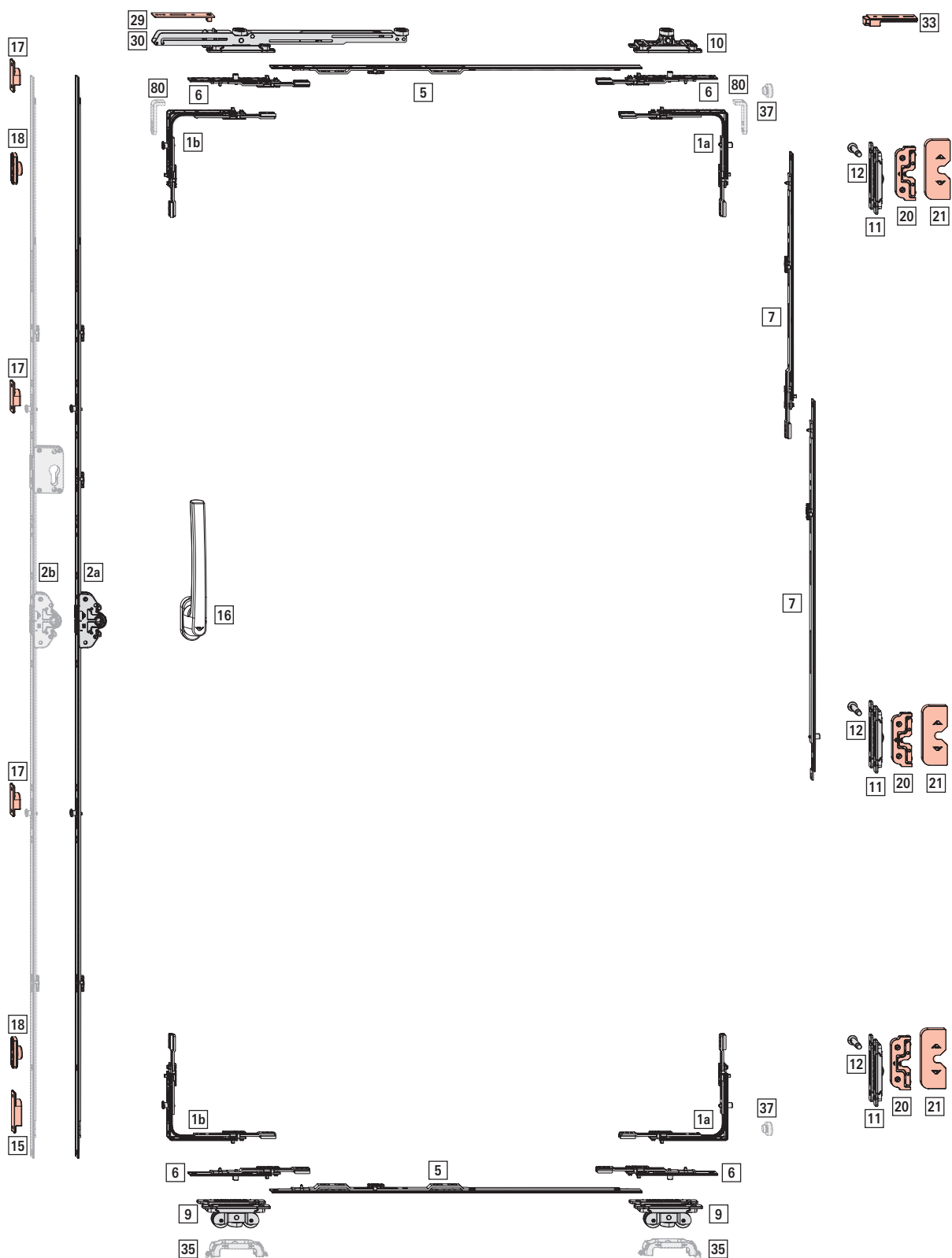
	
< 1060	4
≥ 1060	6

[80] Tilt protection device, for application ranges SRH:SRW = > 2:1 up to max. 3:1; can only be used without control unit with Soft function.

	Nº
Tilt protection device	897049

4.2.4 Rehau | Synego Slide

4.2.4.1 Diagram A, K





Application range

SRW: 710 – 2000 mm

SRH: 600 – 2500 mm

S.kg: max. 250 kg

[1a] Corner drive		With E cam	🛒 2
[1b]		With V cam	🛒 2
		Nº	
1	E	260275	
1	V	260272	

[2a] VT espagnolette								🛒 1
								Nº
40	600 – 800	690	200	263	–	–	Roto Sil	792143
	801 – 1000	890	200	413	–	–	Roto Sil	792144
	1001 – 1200	1090	200	513	1	V	Roto Sil	792185
	1201 – 1600	1290	200	563	1	V	Roto Sil	792188
	1601 – 1800	1690	200	563	1	V	Roto Sil	792190
	1801 – 2400	1890	200	1000	2	V	Roto Sil	792191
	2401 – 2500	2290	200	1000	2	V	Roto Sil	792193

Espagnolette extension, (SRH > 1400 mm); not sh.)

				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal				🛒 2
			Nº	
200	–	–	308267	
344	1	V	572665	
480	–	–	245729	
590	–	–	603442	
790	1	E	603444	
990	1	E	603447	
1190	1	E	603462	
1440	1	E	603466	

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal				🛒 4
				Nº
130	Y	1	E	764350

[7] CL component, vertical, on the mullion				
				Nº
200	Y	–	–	308267
	Y	1	E	450821
400	Y	–	–	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

[9] Roller unit			Nº
41	Left		821686
	Right		823733

< 1060		2
≥ 1060		3

[10] Control unit, on the mullion side and in the centre → from page 161
Alternatively (on the mullion side):

Control unit set with Soft function (incl. activator) → *from page 161*  1

		Nº
41	Left	821685
	Right	823730

[*] Control unit set with Soft function, on the locking side → *from page 161*  1
Alternatively:

[10] Control unit

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[12] MUL locking cam

	Nº
37.5	836782

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[15] Striker to prevent incorrect operation 1

	Nº
Striker to prevent incorrect operation	822789

[16] Handle (200 mm handle length) → CTL_1 1 Recessed grip (43 mm distance), not sh. → CTL_1 1

[17] Striker

	Nº
Screw-on	744579

	
≤ 1000	1
1001 – 1800	2
> 1800	3

[18] Buffer 2

	Nº
14	635307

[20] MUL striker

	Nº
Screw-on	793493

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[21] Cover cap for MUL striker, only in combination with MUL striker, screw-on.

		Nº
R01.1	Natural silver	819632
R05.3	Medium bronze	819631
R06.2	Jet black	798979
R07.2	Traffic white	808054

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side. 1

	Nº
Stopper	800196

Alternatively

[2b] VT espagnolette, lockable (alternative to 2a) 1

								Nº
40	1801 – 2400	1890	200	1000	2	V	Roto Sil	795603
	2401 – 2500	2290	200	1000	2	V	Roto Sil	795604

[37] Rubber buffer (alternative to 33) 2

	Nº
14	729179

Optional

[35] Brush holder

	Nº
Brush holder	809520

	
< 1060	2
≥ 1060	3



[80] **Tilt protection device**; for application ranges SRH:SRW = > 2:1 up to max. 3:1; can only be used without control unit with Soft function.

 2

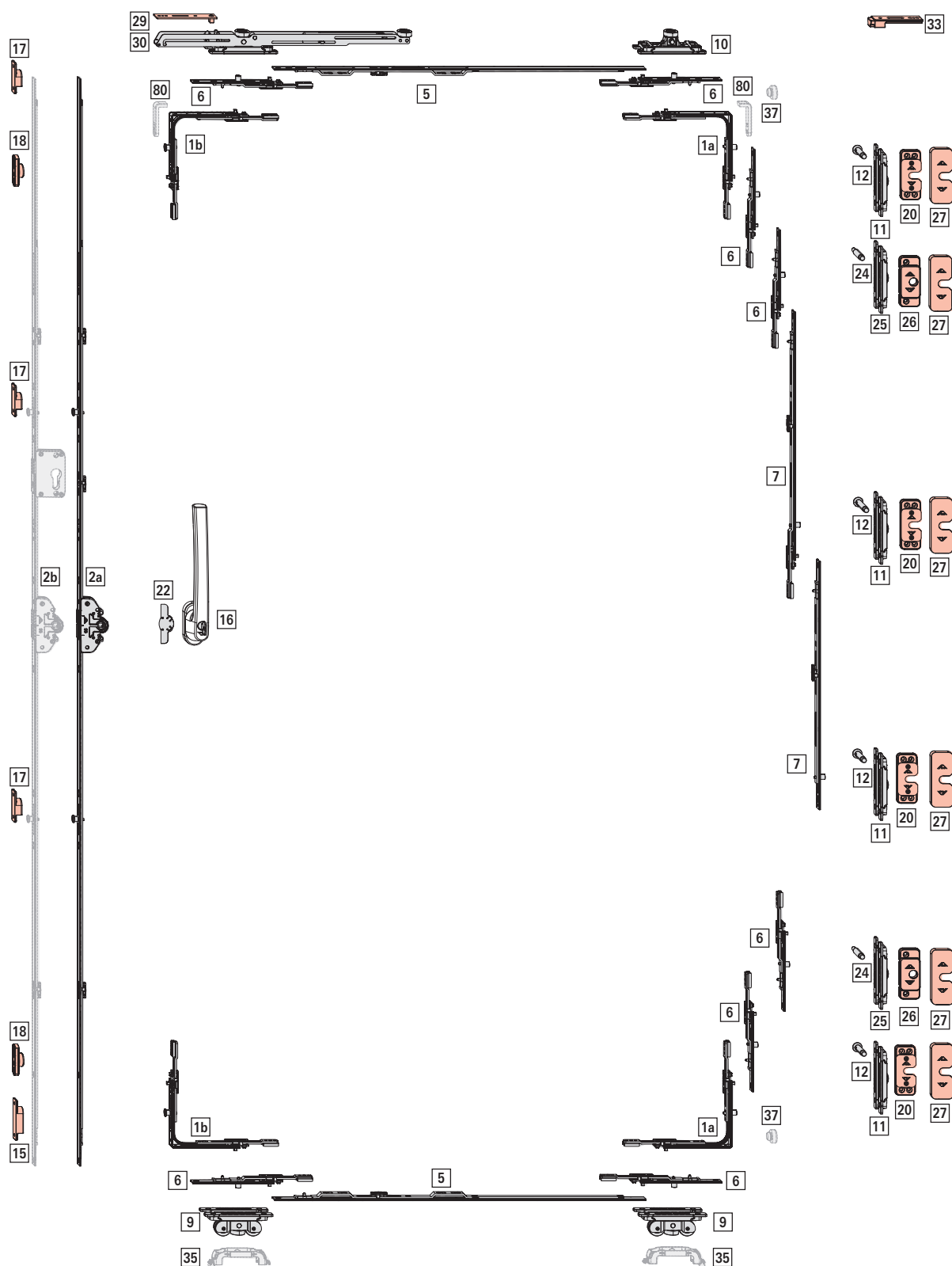


Nº

Tilt protection device

897049

4.2.4.2 Diagram A, K – RC 2 / RC 2 N





Application range

SRW: 710 – 2000 mm

SRH: 1072 – 2500 mm

S.kg: max. 250 kg

[1a] Corner drive	With E cam		2
[1b]	With V cam		2

		Nº
1	E	260275
1	V	260272

[2a] VT espagnolette

								Nº
40	600 – 800	690	200	263	–	–	Roto Sil	792143
	801 – 1000	890	200	413	–	–	Roto Sil	792144
	1001 – 1200	1090	200	513	1	V	Roto Sil	792185
	1201 – 1600	1290	200	563	1	V	Roto Sil	792188
	1601 – 1800	1690	200	563	1	V	Roto Sil	792190
	1801 – 2400	1890	200	1000	2	V	Roto Sil	792191
	2401 – 2500	2290	200	1000	2	V	Roto Sil	792193

Espagnolette extension, (SRH > 1400 mm); not sh.)

				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal

			Nº
200	–	–	308267
344	1	V	572665
480	–	–	245729
590	–	–	603442
790	1	E	603444
990	1	E	603447
1190	1	E	603462
1440	1	E	603466

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442

				Nº
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal and vertical

				Nº
130	Y	1	E	764350

[7] CL component, vertical, on the mullion

				Nº
200	Y	1	E	450821
400	N	1	E	255280
	Y	1	E	280346
600	N	1	E	255281

Size-specific combinations:

				Nº
1072 – 1300	200 KU	1	E	450821
1301 – 1500	400	1	E	255280
1501 – 1700	400 KU	1	E	280346
	200 KU	1	E	450821
1701 – 1900	400 KU	1	E	280346
	400	1	E	255280
1901 – 2100	400 KU	1	E	280346
	600	1	E	255281
2101 – 2300	400 KU	1	E	280346
	400 KU	1	E	280346
	400	1	E	255280
2301 – 2500	400 KU	1	E	280346
	400 KU	1	E	280346
	600	1	E	255281

[9] Roller unit

		Nº
41	Left	821686
	Right	823733

[10] Control unit, on the mullion side and in the centre → from page 161

Alternatively (on the mullion side):

Control unit set with Soft function (incl. activator) → from page 161

		Nº
41	Left	821685
	Right	823730

[*] Control unit set with Soft function, on the locking side → from page 161

Alternatively:

[10] Control unit

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736

	
< 1700	3
1701 – 2100	4
> 2100	5

[12] MUL locking cam

	Nº
37.5	836782

	
< 1700	3
1701 – 2100	4
> 2100	5

[15] SEC striker to prevent incorrect operation

	Nº
SEC striker to prevent incorrect operation	822796

[16] Handle, lockable (200 mm handle length) → CTL_1 **Recessed grip** (43 mm distance), not sh. → CTL_1

[17] SEC striker

	Nº
Screw-on	798226
	
≤ 1800	2
> 1800	3

[18] Buffer

	Nº
14	635307

[20] SEC MUL striker

	Nº
Screw-on	833688
	
< 1700	3
1701 – 2100	4
> 2100	5

[22] Drilling protection

	Nº
Drilling protection	770965

[24] Pin for anti-pushback function

	Nº
37.5	837714

[25] Centre closer for anti-pushback function

		Nº
41	Left	821687
	Right	823736

INFO
L version: order right components.
R version: order left components.

[26] Striker for anti-pushback function

	Nº
Striker for anti-pushback function	810279

[27] Cover cap for SEC MUL striker / striker for anti-pushback function

		Nº
R01.1	Natural silver	828482
R05.3	Medium bronze	828483
R06.2	Jet black	809717
R07.2	Traffic white	819351
		
< 1700	5	
1701 – 2100	6	
> 2100	7	

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side.

	Nº
Stopper	800196



Alternatively

[2b] VT espagnolette, lockable (alternative to 2a) 									
									Nº
40	1801 – 2400	1890	200	1000	2	V	Roto Sil	795603	
	2401 – 2500	2290	200	1000	2	V	Roto Sil	795604	
									Nº
35	1801 – 2400	1890	200	1000	2	V	Roto Sil	798034	
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798055	

[11] Centre closer, adjustable

		Nº
41	Left	823751
	Right	823752
		
< 1700		3
1701 – 2100		4
> 2100		5

[12] MUL locking cam, adjustable

		Nº
Gasket compression adjustable	36	895972
		
< 1700		3
1701 – 2100		4
> 2100		5

[25] Centre closer, adjustable, for anti-push-back function

		Nº
41	Left	823751
	Right	823752



INFO

L version: order right components.

R version: order left components.

[24] Pin, adjustable, for anti-pushback function

		Nº
Gasket compression adjustable	36	895999

Alternatively

[2b] VT espagnolette, lockable (alternative to 2a) 									
									Nº
40	1801 – 2400	1890	200	1000	2	V	Roto Sil	795603	
	2401 – 2500	2290	200	1000	2	V	Roto Sil	795604	
[37] Rubber buffer (alternative to 33) 									Nº
									
14									729179

Optional

[35] Brush holder 	
	Nº
Brush holder	809520

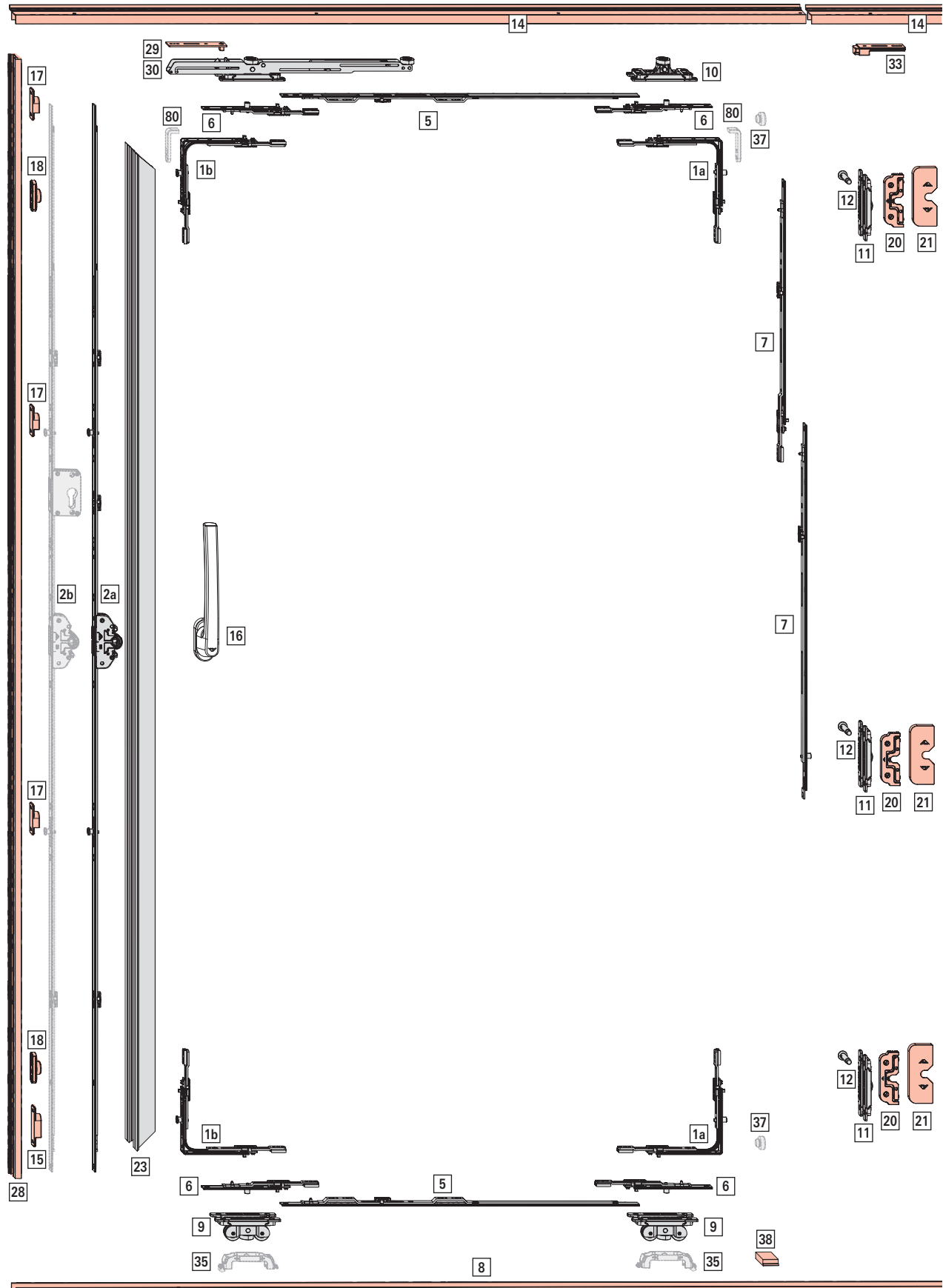
[80] Tilt protection device; for application ranges SRH:SRW = > 2:1 up to max. 3:1; can only be used without control unit with Soft function. 	
	Nº
Tilt protection device	897049

	Nº
Tilt protection device	897049

SKG** info clip, not sh. 			
			Nº
SKG** info clip	For clipping onto the gearbox	R07.2 Traffic white	331459

4.2.5 Salamander | evolutionDrive Plus+

4.2.5.1 Diagram A





Application range

SRW: 710 – 2000 mm

SRH: 600 – 2500 mm

S.kg: max. 250 kg

[1a] Corner drive		With E cam	🛒 2
[1b]		With V cam	🛒 2
		Nº	
1	E	260275	
1	V	260272	

[2a] VT espagnolette								🛒 1
								Nº
35	600 – 800	690	200	263	–	–	Roto Sil	799045
	801 – 1000	890	200	413	–	–	Roto Sil	798027
	1001 – 1200	1090	200	513	1	V	Roto Sil	798028
	1201 – 1600	1290	200	563	1	V	Roto Sil	798030
	1601 – 1800	1690	200	563	1	V	Roto Sil	798031
	1801 – 2400	1890	200	1000	2	V	Roto Sil	798032
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798033

Espagnolette extension, (SRH > 1400 mm); not sh.)				
				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal				🛒 2
			Nº	
200	–	–	308267	
344	1	V	572665	
480	–	–	245729	
590	–	–	603442	
790	1	E	603444	
990	1	E	603447	
1190	1	E	603462	
1440	1	E	603466	

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal					🛒 4
				Nº	
130	Y	1	E	764350	

[7] CL component, vertical, on the mullion				
				Nº
200	Y	–	–	308267
	Y	1	E	450821
400	Y	–	–	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

[8] Roller track				🛒 1
			Nº	
5800	R01.1	Natural silver	897738	

[9] Roller unit			Nº
		Nº	
41	Left	821686	
	Right	823733	

	Nº	
< 1060	2	
≥ 1060	3	

[10] Control unit, on the mullion side and in the centre → from page 161		🛒 1-2
--	--	-------

Alternatively (on the mullion side):

Control unit set with Soft function (incl. activator) → *from page 161*  1

		Nº
41	Left	821685
	Right	823730

[*] **Control unit set with Soft function, on the locking side** → *from page 161*  1

Alternatively:

[10] Control unit

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[12] MUL locking cam

	Nº
38.4	809614

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[14] Guide track 1

			Nº
5800	R01.1	Natural silver	897737

[15] Striker to prevent incorrect operation 1

		Nº
Striker to prevent incorrect operation	Left	897741
	Right	899721

[16] Handle (200 mm handle length) → CTL_1 1**Recessed grip** (43 mm distance), not sh. → CTL_1  1**[17] Striker**

		Nº
Screw-on	Left	897739
	Right	899669

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[18] Buffer 2

	Nº
14	635307

[20] MUL striker

	Nº
Screw-on	793493

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[21] Cover cap for MUL striker, only in combination with MUL striker, screw-on.

		Nº
R01.1	Natural silver	819632
R05.3	Medium bronze	819631
R06.2	Jet black	798979
R07.2	Traffic white	808054

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side.  1

	Nº
Stopper	800196

[23] Sash adapter profile 1

			Nº
5800	R01.1	Natural silver	897735

[28] Frame adapter profile 1

			Nº
5800	R01.1	Natural silver	897734



[38] Gasket pad			 1
			Nº
Gasket pad		2005678	
Gasket for sash (not sh.)			 1
			Nº
Jet black		2002067	
Light grey		2008044	
			#
DEVENTER stop gasket	50,000		1

Alternatively

[2b] VT espagnolette, lockable (alternative to 2a) 									
									Nº
35	1801 – 2400	1890	200	1000	2	V	Roto Sil	798034	
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798055	
[37] Rubber buffer (alternative to 33) 									
	Nº								
14	729179								

Optional

[35] Brush holder	
	Nº
Brush holder	809520
	
< 1060	2
≥ 1060	3
[80] Tilt protection device; for application ranges SRH:SRW = > 2:1 up to max. 3:1; can only be used without control unit with Soft function. 	
	Nº
Tilt protection device	897049

4.2.5.2 Diagram A, K – RC 2 / RC 2 N



[*] Control unit set with Soft function , on the locking side → <i>from page 161</i> 		
Alternatively:		
[10]	Control unit	

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer		
		Nº
41	Left	821687
	Right	823736
		
< 1700		3
1701 – 2100		4
> 2100		5

[12] MUL locking cam		
		Nº
38.4		809614
		
< 1700		3
1701 – 2100		4
> 2100		5

[14] Guide track		
		
5800	R01.1	Natural silver
		897737

[15] SEC striker to prevent incorrect operation		
		Nº
SEC striker to prevent incorrect operation	Left	897742
	Right	899722

[16] Handle , lockable (200 mm handle length) → CTL_1 		
Recessed grip (43 mm distance), not sh. → CTL_1 		

[17] SEC striker		
		Nº
Screw-on	Left	897740
	Right	899720
		
≤ 1800		2
> 1800		3

[18] Buffer	
	Nº
14	635307

[20] SEC MUL striker	
	Nº
Screw-on	833688
<hr/>	
	
< 1700	3
1701 – 2100	4
> 2100	5

[22] Drilling protection	
	Nº
Drilling protection	770965

[24] Pin for anti-pushback function	
	Nº
38	820048

[25] Centre closer for anti-pushback function		
		Nº
41	Left	821687
	Right	823736

INFO
 L version: order right components.
 R version: order left components.

[26] Striker for anti-pushback function	
	Nº
Striker for anti-pushback function	810279

[27] Cover cap for SEC MUL striker / striker for anti-pushback function		
		Nº
R01.1	Natural silver	828482
R05.3	Medium bronze	828483
R06.2	Jet black	809717
R07.2	Traffic white	819351

		
< 1700		5
1701 – 2100		6
> 2100		7

[33] Stopper , cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side.	
	Nº
Stopper	800196



[23] Sash adapter profile 			
			Nº
5800	R01.1	Natural silver	897735
[28] Frame adapter profile 			
			Nº
5800	R01.1	Natural silver	897734
[38] Gasket pad 			
	Nº		
Gasket pad	2005678		
Gasket for sash (not sh.) 			
	Nº		
Jet black	2002067		
Light grey	2008044		
			#
DEVENTER stop gasket	50,000		1

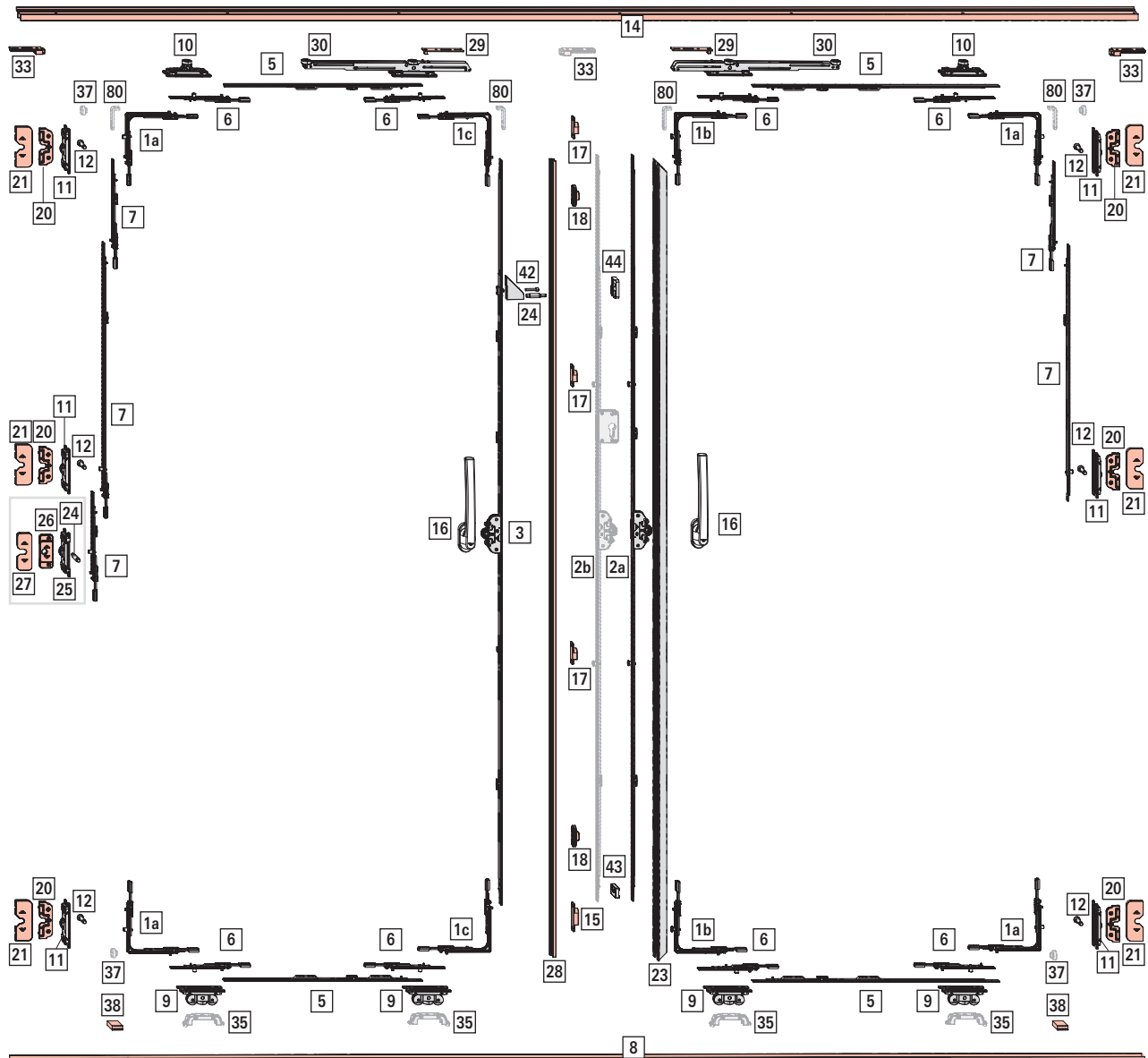
Alternatively

[2b] VT espagnolette, lockable (alternative to 2a) 									
									Nº
35	1801 – 2400	1890	200	1000	2	V	Roto Sil	798034	
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798055	
[37] Rubber buffer (alternative to 33) 									
	Nº								
14	729179								

Optional

[35] Brush holder			 3
			Nº
Brush holder			809520
[80] Tilt protection device; for application ranges SRH:SRW = > 2:1 up to max. 3:1; can only be used without control unit with Soft function.			 2
			Nº
Tilt protection device			897049
SKG** info clip, not sh.			 1
		 	Nº
SKG** info clip	For clipping onto the gearbox	R07.2 Traffic white	331459

4.2.5.3 Diagram C





Application range

SRW: 710 – 1500 mm

SRH: 600 – 2500 mm

S.kg: max. 250 kg

[1a] Corner drive	With E cam	4
[1b]	With V cam	2
[1c]	Without cam	2
		Nº
1	E	260275
1	V	260272
–	–	339785

[2a] VT espagnolette								 1	
									Nº
35	600 – 800	690	200	263	–	–	Roto Sil	799045	
	801 – 1000	890	200	413	–	–	Roto Sil	798027	
	1001 – 1200	1090	200	513	1	V	Roto Sil	798028	
	1201 – 1600	1290	200	563	1	V	Roto Sil	798030	
	1601 – 1800	1690	200	563	1	V	Roto Sil	798031	
	1801 – 2400	1890	200	1000	2	V	Roto Sil	798032	
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798033	

[3]	VT espagnolette, second opening sash							 1
							Nº	
25	600 – 800	690	200	263	–	–	–	793942
	801 – 1000	890	200	413	–	–	Roto Sil	793943
	1001 – 1200	1090	200	513	–	–	Roto Sil	809691
	1201 – 1600	1290	200	563	–	–	Roto Sil	809692
	1601 – 1800	1690	200	563	–	–	Roto Sil	809694
	1801 – 2400	1890	200	1000	–	–	Roto Sil	809695
	2401 – 2500	2290	200	1000	–	–	Roto Sil	809697

Espagnolette extension, (SRH > 1400 mm); not sh.)				
				Nº
200	Y	—	—	308267
400	Y	—	—	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal			 4
			Nº
200	—	—	308267
344	1	V	572665
480	—	—	245729
590	—	—	603442
790	1	E	603444
990	1	E	603447
1190	1	E	603462

Size-specific combinations:

First or second opening sash

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
≥ 1460	1190	1	E	603462

[6] Centre lock component 130, horizontal and vertical				 8
		 #		Nº
130	Y	1	E	764350

[7] CL component, vertical, on the mullion				
				Nº
200	Y	–	–	308267
	Y	1	E	450821
400	Y	–	–	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

First opening sash:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

Second opening sash:

				Nº
600 – 1200	200 KU	1	E	450821
1201 – 1800	600 KU	1	E	255282
	200 KU	1	E	450821
1801 – 2000	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	1	E	450821
2001 – 2200	400 KU	–	–	297858
	600 KU	1	E	255282
	200 KU	1	E	450821
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600 KU	1	E	255282
	200 KU	1	E	450821
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	1	E	450821

[8] Roller track 			
			Nº
5800	R01.1	Natural silver	897738

[9] Roller unit		
		Nº
41	Left	821686
	Right	823733
		
< 1060		4
≥ 1060		6

[10] Control unit, on the mullion side and in the centre → from page 161 		
Alternatively (on the mullion side):		
Control unit set with Soft function (incl. activator) → from page 161 		

		Nº
41	Left	821685
	Right	823730

[*] Control unit set with Soft function, on the locking side → from page 161 		
Alternatively:		
[10] Control unit		

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer		
		Nº
41	Left	821687
	Right	823736

	
≤ 1200	4
1201 – 2400	6
> 2400	8

[12] MUL locking cam	
	Nº
38.4	809614

	
≤ 1200	4
1201 – 2400	6
> 2400	8

[14] Guide track 			
			Nº
5800	R01.1	Natural silver	897737

[15] Striker to prevent incorrect operation 		
		Nº
Striker to prevent incorrect operation	Left	897741
	Right	899721

[16] Handle (200 mm handle length) → CTL_1 		
Recessed grip (43 mm distance), not sh. → CTL_1 		

[17] Striker		
		Nº
Screw-on	Left	897739
	Right	899669

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[18] Buffer 	
	Nº
14	635307

[20] MUL striker	
	Nº
Screw-on	793493

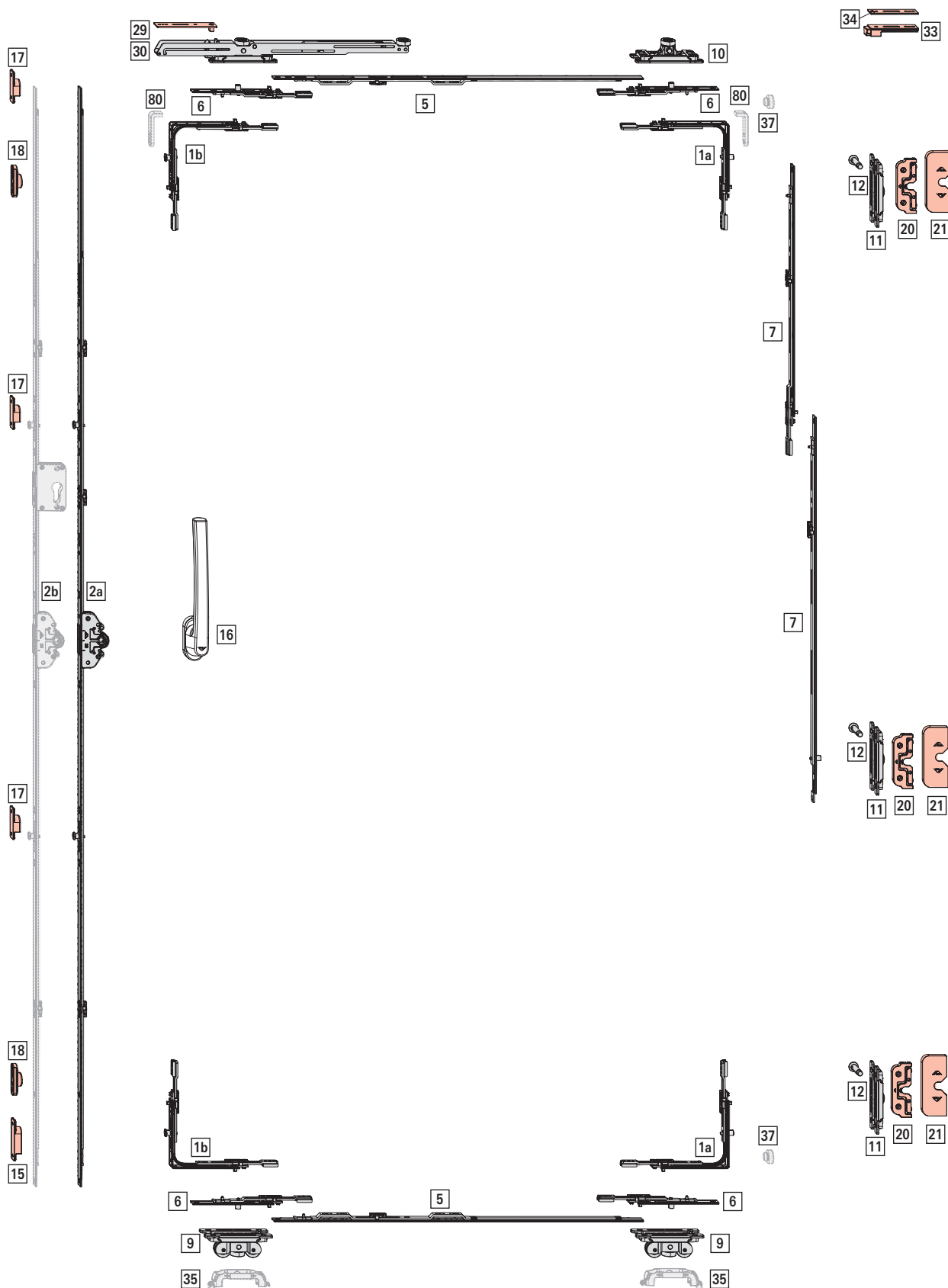
	
≤ 1200	4
1201 – 2400	6
> 2400	8

[80] Tilt protection device ; for application ranges SRH:SRW = > 2:1 up to max. 3:1; can only be used without control unit with Soft function.		 4
		Nº
Tilt protection device		897049



4.2.6 ASAŞ | Inova

4.2.6.1 Diagram A, K





Application range

SRW: 710 – 2000 mm

SRH: 600 – 2500 mm

S.kg: max. 200 kg

[1a] Corner drive		With E cam	🛒 2
[1b]		With V cam	🛒 2
		Nº	
1	E	260275	
1	V	260272	

[2a] VT espagnolette								🛒 1
							Nº	
40	600 – 800	690	200	263	–	–	Roto Sil	792143
	801 – 1000	890	200	413	–	–	Roto Sil	792144
	1001 – 1200	1090	200	513	1	V	Roto Sil	792185
	1201 – 1600	1290	200	563	1	V	Roto Sil	792188
	1601 – 1800	1690	200	563	1	V	Roto Sil	792190
	1801 – 2400	1890	200	1000	2	V	Roto Sil	792191
	2401 – 2500	2290	200	1000	2	V	Roto Sil	792193

Espagnolette extension, (SRH > 1400 mm); not sh.)				
				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal				🛒 2
			Nº	
200	–	–	308267	
344	1	V	572665	
480	–	–	245729	
590	–	–	603442	
790	1	E	603444	
990	1	E	603447	
1190	1	E	603462	
1440	1	E	603466	

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal					🛒 4
				Nº	
130	Y	1	E	764350	

[7] CL component, vertical, on the mullion				
				Nº
200	Y	–	–	308267
	Y	1	E	450821
400	Y	–	–	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

[9] Roller unit		
		Nº
41	Left	821686
	Right	823733

< 1060	2
≥ 1060	3

[10] Control unit, on the mullion side and in the centre → from page 161		🛒 1-2
Alternatively (on the mullion side):		

Control unit set with Soft function (incl. activator) → *from page 161*

		Nº
41	Left	821685
	Right	823730

[*] **Control unit set with Soft function**, on the locking side → *from page 161*

Alternatively:

[10] Control unit

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736

≤ 1200	2
1201 – 2400	3
> 2400	4

[12] MUL locking cam

	Nº
33.5	819884

≤ 1200	2
1201 – 2400	3
> 2400	4

[15] Striker to prevent incorrect operation

	Nº
Striker to prevent incorrect operation	822789

[16] Handle (200 mm handle length) → CTL_1

Recessed grip (43 mm distance), not sh. → CTL_1

[17] Striker

	Nº
Screw-on	744579

≤ 1000	1
1001 – 1800	2
> 1800	3

[18] Buffer

	Nº
14	635307

[20] MUL striker

	Nº
Screw-on	793493

≤ 1200	2
1201 – 2400	3
> 2400	4

[21] Cover cap for MUL striker, only in combination with MUL striker, screw-on.

		Nº
R01.1	Natural silver	819632
R05.3	Medium bronze	819631
R06.2	Jet black	798979
R07.2	Traffic white	808054

≤ 1200	2
1201 – 2400	3
> 2400	4

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side.

	Nº
Stopper	800196

[34] Packer

	Nº
Packer	800197

Alternatively**[2b] VT espagnolette**, lockable (alternative to 2a)

								Nº
40	1801 – 2400	1890	200	1000	2	V	Roto Sil	795603
	2401 – 2500	2290	200	1000	2	V	Roto Sil	795604

[37] Rubber buffer (alternative to 33)

	Nº
14	729179



Optional

[35] Brush holder		
	Nº	
Brush holder	809520	
		
< 1060	2	
≥ 1060	3	
[80] Tilt protection device; for application ranges SRH:SRW = > 2:1 up to max. 3:1; can only be used without control unit with Soft function.		
		2
	Nº	
Tilt protection device	897049	

4.2.6.2 Diagram A, K – RC 2 / RC 2 N





Application range

SRW: 710 – 2000 mm

SRH: 1072 – 2500 mm

S.kg: max. 200 kg

[1a] Corner drive		With E cam	🛒 2
[1b]		With V cam	🛒 2
			Nº
1	E		260275
1	V		260272

[2a] VT espagnolette								🛒 1
							Nº	
40	1001 – 1200	1090	200	513	1	V	Roto Sil	792185
	1201 – 1600	1290	200	563	1	V	Roto Sil	792188
	1601 – 1800	1690	200	563	1	V	Roto Sil	792190
	1801 – 2400	1890	200	1000	2	V	Roto Sil	792191
	2401 – 2500	2290	200	1000	2	V	Roto Sil	792193

Espagnolette extension, (SRH > 1400 mm); not sh.)				
				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal				🛒 2
			Nº	
200	–	–	308267	
344	1	V	572665	
480	–	–	245729	
590	–	–	603442	
790	1	E	603444	
990	1	E	603447	
1190	1	E	603462	
1440	1	E	603466	

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444

				Nº
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal and vertical				🛒 8
				Nº
130	Y	1	E	764350

[7] CL component, vertical, on the mullion				
				Nº
200	Y	1	E	450821
400	N	1	E	255280
	Y	1	E	280346
600	N	1	E	255281

Size-specific combinations:

				Nº
1072 – 1300	200 KU	1	E	450821
1301 – 1500	400	1	E	255280
1501 – 1700	400 KU	1	E	280346
	200 KU	1	E	450821
1701 – 1900	400 KU	1	E	280346
	400	1	E	255280
1901 – 2100	400 KU	1	E	280346
	600	1	E	255281
2101 – 2300	400 KU	1	E	280346
	400 KU	1	E	280346
	400	1	E	255280
2301 – 2500	400 KU	1	E	280346
	400 KU	1	E	280346
	600	1	E	255281

[9] Roller unit			🛒 3
		Nº	
41	Left	821686	
	Right	823733	

[10] Control unit, on the mullion side and in the centre → <i>from page 161</i>			🛒 1-2
Alternatively (on the mullion side):			
Control unit set with Soft function (incl. activator) → <i>from page 161</i>			🛒 1

		Nº
41	Left	821685
	Right	823730

[*] Control unit set with Soft function, on the locking side → <i>from page 161</i>			🛒 1
Alternatively:			

[10] Control unit

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736

	
< 1700	3
1701 – 2100	4
> 2100	5

[12] MUL locking cam

	Nº
33.5	819884

	
< 1700	3
1701 – 2100	4
> 2100	5

[15] SEC striker to prevent incorrect operation

	Nº
SEC striker to prevent incorrect operation	822796

[16] Handle, lockable (200 mm handle length)
→ CTL_1
Recessed grip (43 mm distance), not sh.
→ CTL_1**[17] SEC striker**

	Nº
Screw-on	798226
	
≤ 1800	2
> 1800	3

[18] Buffer

	Nº
14	635307

[20] SEC MUL striker

	Nº
Screw-on	833688
	
< 1700	3
1701 – 2100	4
> 2100	5

[22] Drilling protection

	Nº
Drilling protection	770965

[24] Pin for anti-pushback function

	Nº
34	822393

[25] Centre closer for anti-pushback function

		Nº
41	Left	821687
	Right	823736

**INFO**

L version: order right components.

R version: order left components.

[26] Striker for anti-pushback function

	Nº
Striker for anti-pushback function	810279

[27] Cover cap for SEC MUL striker / striker for anti-pushback function

		Nº
R01.1	Natural silver	828482
R05.3	Medium bronze	828483
R06.2	Jet black	809717
R07.2	Traffic white	819351

	
< 1700	5
1701 – 2100	6
> 2100	7

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side.

	Nº
Stopper	800196

[34] Packer

	Nº
Packer	800197



Alternatively

[2b] VT espagnolette, lockable (alternative to 2a) 									
									Nº
40	1801 – 2400	1890	200	1000	2	V	Roto Sil	795603	
	2401 – 2500	2290	200	1000	2	V	Roto Sil	795604	

[37] Rubber buffer (alternative to 33) 	
	Nº
14	729179

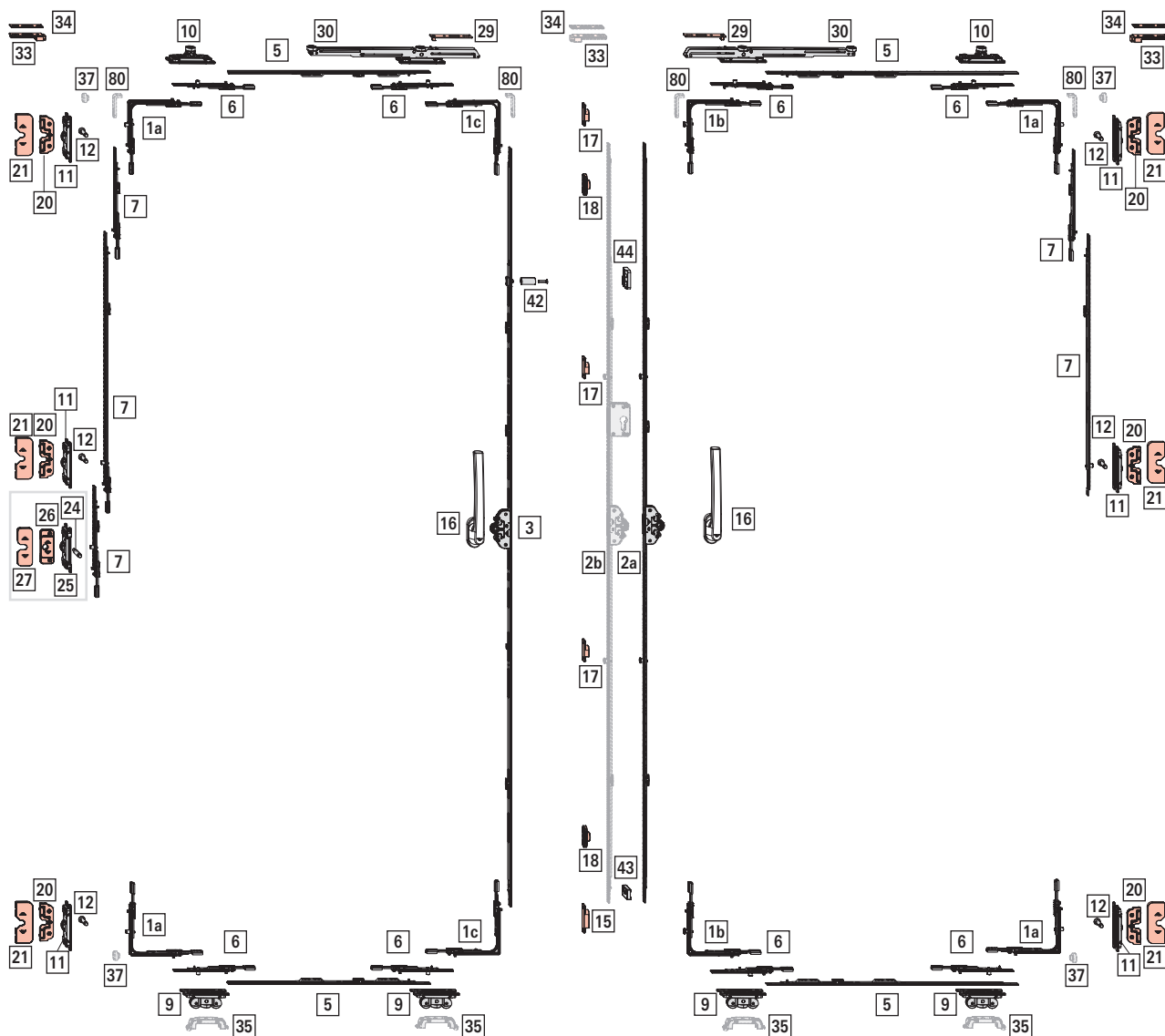
Optional

[35] Brush holder 	
	Nº
Brush holder	809520

[80] Tilt protection device; for application ranges SRH:SRW = > 2:1 up to max. 3:1; can only be used without control unit with Soft function. 	
	Nº
Tilt protection device	897049

SKG** info clip, not sh. 	
	Nº
SKG** info clip	For clipping onto the gearbox
R07.2	Traffic white 331459

4.2.6.3 Diagram C





Application range

SRW: 710 – 1500 mm

SRH: 600 – 2500 mm

S.kg: max. 200 kg

[1a] Corner drive	With E cam	4
[1b]	With V cam	2
[1c]	Without cam	2
		Nº
1	E	260275
1	V	260272
–	–	339785

[2a] VT espagnolette								 1
								Nº
40	600 – 800	690	200	263	–	–	Roto Sil	792143
	801 – 1000	890	200	413	–	–	Roto Sil	792144
	1001 – 1200	1090	200	513	1	V	Roto Sil	792185
	1201 – 1600	1290	200	563	1	V	Roto Sil	792188
	1601 – 1800	1690	200	563	1	V	Roto Sil	792190
	1801 – 2400	1890	200	1000	2	V	Roto Sil	792191
	2401 – 2500	2290	200	1000	2	V	Roto Sil	792193

[3] VT espagnolette, second opening sash								 1
							Nº	
40	600 – 800	690	200	263	–	–	Roto Sil 792143	
	801 – 1000	890	200	413	–	–	Roto Sil 792144	
	1001 – 1200	1090	200	513	–	–	Roto Sil 809645	
	1201 – 1600	1290	200	563	–	–	Roto Sil 809646	
	1601 – 1800	1690	200	563	–	–	Roto Sil 809648	
	1801 – 2400	1890	200	1000	–	–	Roto Sil 809649	
	2401 – 2500	2290	200	1000	–	–	Roto Sil 809651	

Espagnolette extension, (SRH > 1400 mm); not sh.)				
				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal			 4
	 #		Nº
200	—	—	308267
344	1	V	572665
480	—	—	245729
590	—	—	603442
790	1	E	603444
990	1	E	603447
1190	1	E	603462

Size-specific combinations:

First or second opening sash

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
≥ 1460	1190	1	E	603462

[6] Centre lock component 130, horizontal					 8
				Nº	
130	Y	1	E	764350	

[7] CL component, vertical, on the mullion				
				Nº
200	Y	–	–	308267
	Y	1	E	450821
400	Y	–	–	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

First opening sash:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

Second opening sash:

				Nº
600 – 1200	200 KU	1	E	450821
1201 – 1800	600 KU	1	E	255282
	200 KU	1	E	450821
1801 – 2000	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	1	E	450821
2001 – 2200	400 KU	–	–	297858
	600 KU	1	E	255282
	200 KU	1	E	450821
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600 KU	1	E	255282
	200 KU	1	E	450821
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	1	E	450821

[9] Roller unit

		Nº
41	Left	821686
	Right	823733
		
< 1060		4
≥ 1060		6

[10] Control unit, on the mullion side and in the centre → *from page 161*  2-4
 Alternatively (on the mullion side):
 Control unit set with Soft function (incl. activator) → *from page 161*  1-2

		Nº
41	Left	821685
	Right	823730

[*] Control unit set with Soft function, on the locking side → *from page 161*  2
 Alternatively:
 [10] Control unit

Contents:

[*]		#
[29] Activator		1
[30] Control unit with Soft function		1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736

	
≤ 1200	4
1201 – 2400	6
> 2400	8

[12] MUL locking cam

	Nº
33.5	819884
	
≤ 1200	4
1201 – 2400	6
> 2400	8

[15] Striker to prevent incorrect operation 1

	Nº
Striker to prevent incorrect operation	822789

[16] Handle (200 mm handle length) → CTL_1  2
Recessed grip (43 mm distance), not sh. →  2
 CTL_1

[17] Striker

	Nº
Screw-on	744579
	
≤ 1000	1
1001 – 1800	2
> 1800	3

[18] Buffer 2

	Nº
14	635307

[20] MUL striker

	Nº
Screw-on	793493
	
≤ 1200	4
1201 – 2400	6
> 2400	8



[21] Cover cap for MUL striker, only in combination with MUL striker, screw-on.

		Nº
R01.1	Natural silver	819632
R05.3	Medium bronze	819631
R06.2	Jet black	798979
R07.2	Traffic white	808054
		
≤ 1200		4
1201 – 2400		6
> 2400		8

[24] Pin for anti-pushback function

	Nº
34	822393

[25] Centre closer for anti-pushback function

		Nº
41	Left	821687
	Right	823736



INFO

L version: order right components.

R version: order left components.

[26] Striker for anti-pushback function

	Nº
Striker for anti-pushback function	810279

[27] Cover cap for striker for anti-pushback function

		Nº
R01.1	Natural silver	828482
R05.3	Medium bronze	828483
R06.2	Jet black	809717
R07.2	Traffic white	819351

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen / SoftClose together with SoftStop on the mullion side / SoftStop on the locking side.

	Nº
Stopper	800196

[34] Packer

	Nº
Packer	800197

[*] Operating sequence control set SRH ≥ 1200 mm, profile-related

		Nº
PVC	ASAŞ Inova	858557

[*]		#
[42]	Cam with countersunk screw, M5 x 20	1
[43]	Anti-lifting device	1
[44]	Striker with buffer	1

Alternatively

[2b] VT espagnolette, lockable (alternative to 2a) → from page 152

								Nº
40	1801 – 2400	1890	200	1000	2	V	Roto Sil	795603
	2401 – 2500	2290	200	1000	2	V	Roto Sil	795604

[37] Rubber buffer (alternative to 33)

	Nº
14	729179

Optional

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the locking side.

	Nº
Stopper	800196

[34] Packer

	Nº
Packer	800197

[35] Brush holder

	Nº
Brush holder	809520

	
< 1060	4
≥ 1060	6

[80] Tilt protection device; for application ranges SRH:SRW = > 2:1 up to max. 3:1; can only be used without control unit with Soft function.

	Nº
Tilt protection device	897049

4.2.7 Decco | Slide

4.2.7.1 Diagram A, K





Application range

SRW: 710 – 2000 mm

SRH: 600 – 2500 mm

S.kg: max. 250 kg

[1a] Corner drive		With E cam	🛒 2
[1b]		With V cam	🛒 2
		Nº	
1	E	260275	
1	V	260272	

[2a] VT espagnolette								🛒 1
							Nº	
35	600 – 800	690	200	263	–	–	Roto Sil	799045
	801 – 1000	890	200	413	–	–	Roto Sil	798027
	1001 – 1200	1090	200	513	1	V	Roto Sil	798028
	1201 – 1600	1290	200	563	1	V	Roto Sil	798030
	1601 – 1800	1690	200	563	1	V	Roto Sil	798031
	1801 – 2400	1890	200	1000	2	V	Roto Sil	798032
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798033

Espagnolette extension, (SRH > 1400 mm); not sh.)

				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal				🛒 2
			Nº	
200	–	–	308267	
344	1	V	572665	
480	–	–	245729	
590	–	–	603442	
790	1	E	603444	
990	1	E	603447	
1190	1	E	603462	
1440	1	E	603466	

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal					🛒 4
				Nº	
130	Y	1	E	764350	

[7] CL component, vertical, on the mullion				
				Nº
200	Y	–	–	308267
	Y	1	E	450821
400	Y	–	–	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

[9] Roller unit		
		Nº
41	Left	821686
	Right	823733

< 1060	2
≥ 1060	3

[10] Control unit, on the mullion side and in the centre → from page 161
Alternatively (on the mullion side):

Control unit set with Soft function (incl. activator) → *from page 161*  1

		Nº
41	Left	821685
	Right	823730

[*] Control unit set with Soft function, on the locking side → *from page 161*  1
Alternatively:

[10] Control unit

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[12] MUL locking cam

	Nº
37.5	836782

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[15] Striker to prevent incorrect operation 1

	Nº
Striker to prevent incorrect operation	822789

[16] Handle (200 mm handle length) → CTL_1 1 Recessed grip (43 mm distance), not sh. → CTL_1 1

[17] Striker

	Nº
Screw-on	744579

	
≤ 1000	1
1001 – 1800	2
> 1800	3

[18] Buffer 2

	Nº
14	635307

[20] MUL striker

	Nº
Screw-on	793493

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[21] Cover cap for MUL striker, only in combination with MUL striker, screw-on.

		Nº
R01.1	Natural silver	819632
R05.3	Medium bronze	819631
R06.2	Jet black	798979
R07.2	Traffic white	808054

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side. 1

	Nº
Stopper	800196

[34] Packer (without packer for activator) 1

	Nº
Packer	800197
	
Without control unit with Soft function	1
With one control unit with Soft function	2
With two control units with Soft function	3

Alternatively

[2b] VT espagnolette, lockable (alternative to 2a) 1

									Nº
35	1801 – 2400	1890	200	1000	2	V	Roto Sil	798034	
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798055	

[37] Rubber buffer (alternative to 33) 2

	Nº
14	729179



Optional

[35] Brush holder		
		Nº
Brush holder		809520
<hr/>		
		
< 1060		2
≥ 1060		3
<hr/>		
[80] Tilt protection device ; for application ranges SRH:SRW = > 2:1 up to max. 3:1; can only be used without control unit with Soft function.		
		 2
		Nº
Tilt protection device		897049

4.2.7.2 Diagram A, K – RC 2 / RC 2 N





Application range

SRW: 710 – 2000 mm

SRH: 1072 – 2500 mm

S.kg: max. 250 kg

[1a] Corner drive		With E cam	🛒 2
[1b]		With V cam	🛒 2
		Nº	
1	E	260275	
1	V	260272	

[2a] VT espagnolette								 1
							Nº	
35	1001 – 1200	1090	200	513	1	V	Roto Sil 798028	
	1201 – 1600	1290	200	563	1	V	Roto Sil 798030	
	1601 – 1800	1690	200	563	1	V	Roto Sil 798031	
	1801 – 2400	1890	200	1000	2	V	Roto Sil 798032	
	2401 – 2500	2290	200	1000	2	V	Roto Sil 798033	

Espagnolette extension, (SRH > 1400 mm); not sh.)				
				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal				🛒 2
			Nº	
200	–	–	308267	
344	1	V	572665	
480	–	–	245729	
590	–	–	603442	
790	1	E	603444	
990	1	E	603447	
1190	1	E	603462	
1440	1	E	603466	

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444

				Nº
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal and vertical				🛒 8
				Nº
130	Y	1	E	764350

[7] CL component, vertical, on the mullion				
				Nº
200	Y	1	E	450821
400	N	1	E	255280
	Y	1	E	280346
600	N	1	E	255281

Size-specific combinations:

				Nº
1072 – 1300	200 KU	1	E	450821
1301 – 1500	400	1	E	255280
1501 – 1700	400 KU	1	E	280346
	200 KU	1	E	450821
1701 – 1900	400 KU	1	E	280346
	400	1	E	255280
1901 – 2100	400 KU	1	E	280346
	600	1	E	255281
2101 – 2300	400 KU	1	E	280346
	400 KU	1	E	280346
	400	1	E	255280
2301 – 2500	400 KU	1	E	280346
	400 KU	1	E	280346
	600	1	E	255281

[9] Roller unit			🛒 3
		Nº	
41	Left	821686	
	Right	823733	

[10] Control unit, on the mullion side and in the centre → <i>from page 161</i>				🛒 1-2
Alternatively (on the mullion side):				
Control unit set with Soft function (incl. activator) → <i>from page 161</i>				🛒 1

		Nº	
41	Left	821685	
	Right	823730	

[*] Control unit set with Soft function, on the locking side → <i>from page 161</i>				🛒 1
Alternatively:				

[10] Control unit

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736

	
< 1700	3
1701 – 2100	4
> 2100	5

[12] MUL locking cam

	Nº
37.5	836782

	
< 1700	3
1701 – 2100	4
> 2100	5

[15] SEC striker to prevent incorrect operation

	Nº
SEC striker to prevent incorrect operation	822796

[16] Handle, lockable (200 mm handle length)
→ CTL_1
Recessed grip (43 mm distance), not sh.
→ CTL_1**[17] SEC striker**

	Nº
Screw-on	798226

	
≤ 1800	2
> 1800	3

[18] Buffer

	Nº
14	635307

[20] SEC MUL striker

Material number of mullion security striker available upon request.

	
< 1700	3
1701 – 2100	4
> 2100	5

[22] Drilling protection

	Nº
Drilling protection	770965

[24] Pin for anti-pushback function

	Nº
38	820048

[25] Centre closer for anti-pushback function

		Nº
41	Left	821687
	Right	823736

**INFO**

L version: order right components.

R version: order left components.

[26] Striker for anti-pushback function

	Nº
Striker for anti-pushback function	810279

[27] Cover cap for SEC MUL striker / striker for anti-pushback function

		Nº
		
R01.1	Natural silver	828482
R05.3	Medium bronze	828483
R06.2	Jet black	809717
R07.2	Traffic white	819351

	
< 1700	5
1701 – 2100	6
> 2100	7

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side.

	Nº
Stopper	800196



[34] Packer (without packer for activator) 1

 N°

Packer 800197



Without control unit with Soft function	1
With one control unit with Soft function	2
With two control units with Soft function	3

Alternatively

[2b] VT espagnolette, lockable (alternative to 2a) 1

									N°
35	1801 – 2400	1890	200	1000	2	V	Roto Sil	798034	
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798055	

[37] Rubber buffer (alternative to 33) 2

	N°
14	729179

Optional

[35] Brush holder 3

 N°

Brush holder 809520

[80] Tilt protection device; for application ranges SRH:SRW = > 2:1 up to max. 3:1; can only be used without control unit with Soft function. 2

 N°

Tilt protection device 897049

SKG** info clip, not sh. 1

				N°
SKG** info clip	For clipping onto the gearbox	R07.2	Traffic white	331459

4.2.8 Veka | VEKAMOVE 76

4.2.8.1 Diagram A, K





Application range

SRW: 710 – 2000 mm

SRH: 600 – 2500 mm

S.kg: max. 250 kg

[1a] Corner drive		With E cam	🛒 2
[1b]		With V cam	🛒 2
		Nº	
1	E	260275	
1	V	260272	

[2a] VT espagnolette								🛒 1
								Nº
40	600 – 800	690	200	263	–	–	Roto Sil	792143
	801 – 1000	890	200	413	–	–	Roto Sil	792144
	1001 – 1200	1090	200	513	1	V	Roto Sil	792185
	1201 – 1600	1290	200	563	1	V	Roto Sil	792188
	1601 – 1800	1690	200	563	1	V	Roto Sil	792190
	1801 – 2400	1890	200	1000	2	V	Roto Sil	792191
	2401 – 2500	2290	200	1000	2	V	Roto Sil	792193

Espagnolette extension, (SRH > 1400 mm); not sh.)

				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal				🛒 2
			Nº	
200	–	–	308267	
344	1	V	572665	
480	–	–	245729	
590	–	–	603442	
790	1	E	603444	
990	1	E	603447	
1190	1	E	603462	
1440	1	E	603466	

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal					🛒 4
				Nº	
130	Y	1	E	764350	

[7] CL component, vertical, on the mullion				
				Nº
200	Y	–	–	308267
	Y	1	E	450821
400	Y	–	–	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

[9] Roller unit		
		Nº
41	Left	821686
	Right	823733

	
< 1060	2
≥ 1060	3

[10] Control unit, on the mullion side and in the centre		🛒 1 – 2
Alternatively (on the mullion side):		
Control unit set with Soft function →		🛒 1
from page 161		

Activator for Soft function can be used with an asymmetrical screw fixing → *from page 163*



		Nº
41	Left	821685
	Right	823730

[*] Control unit set with Soft function, on the locking side → *from page 161*



Alternatively:

[10] Control unit

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736

≤ 1200		2
1201 – 2400		3
> 2400		4

[12] MUL locking cam

	Nº
36	2009487

≤ 1200		2
1201 – 2400		3
> 2400		4

[15] Striker to prevent incorrect operation



	Nº
Striker to prevent incorrect operation	822789

[16] Handle (200 mm handle length) → CTL_1



Recessed grip (43 mm distance), not sh. → CTL_1



[17] Striker

	Nº
Screw-on	744579

≤ 1000		1
1001 – 1800		2
> 1800		3

[18] Buffer



	Nº
14	635307

[20] MUL striker

	Nº
Screw-on	793493

≤ 1200		2
1201 – 2400		3
> 2400		4

[21] Cover cap for MUL striker, only in combination with MUL striker, screw-on.

		Nº
R01.1	Natural silver	819632
R05.3	Medium bronze	819631
R06.2	Jet black	798979
R07.2	Traffic white	808054

≤ 1200		2
1201 – 2400		3
> 2400		4

[33] Stopper for an asymmetrical screw fixing, cannot be used in conjunction with a control unit with SoftOpen and SoftStop on the mul-lion side.



	Nº
Stopper	2027526

Alternatively

[2b] VT espagnolette, lockable (alternative to 2a)



								Nº
40	1801 – 2400	1890	200	1000	2	V	Roto Sil	795603
	2401 – 2500	2290	200	1000	2	V	Roto Sil	795604

[37] Rubber buffer (alternative to 33)



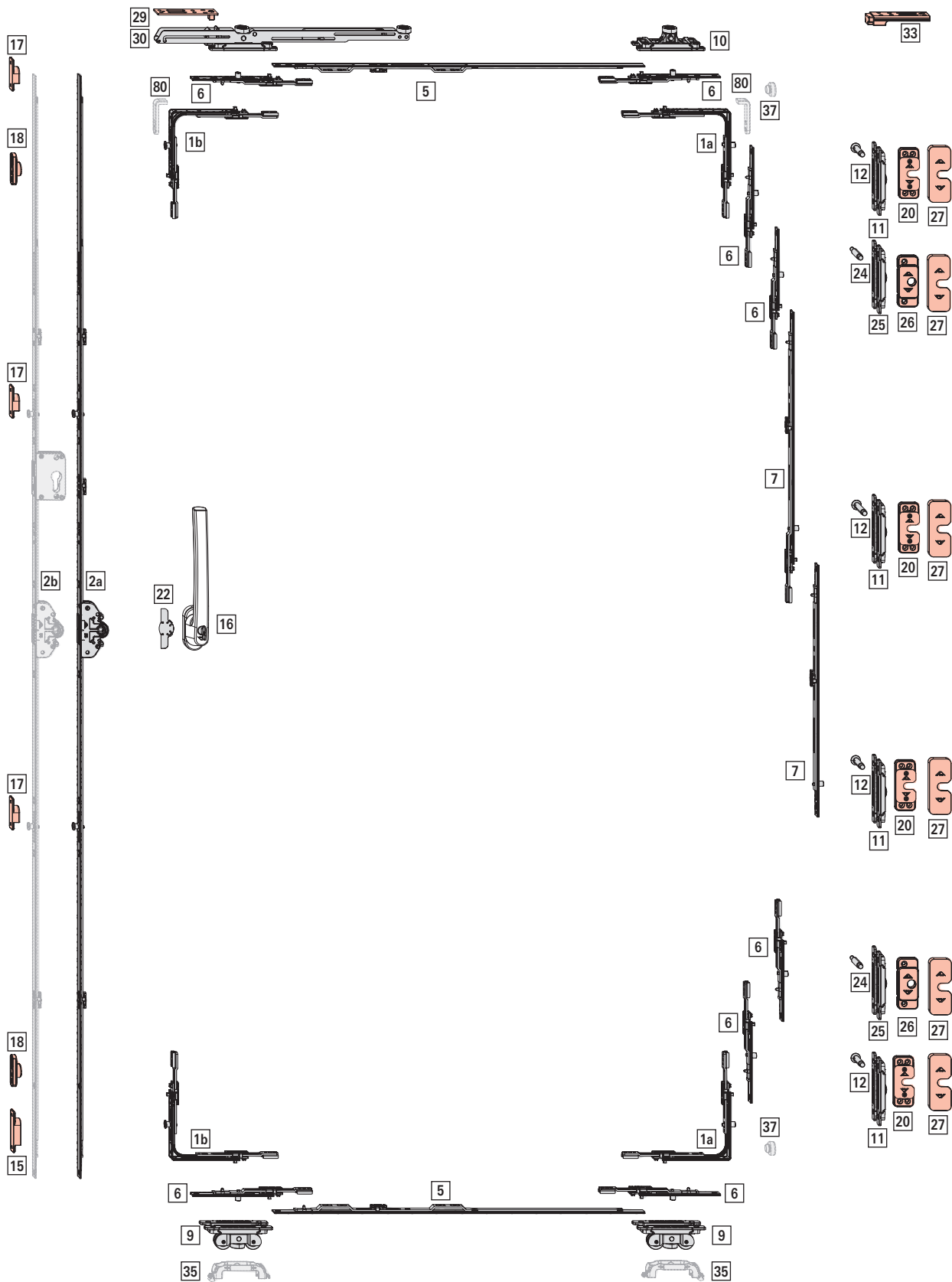
	Nº
14	729179



Optional

[35] Brush holder		
	Nº	
Brush holder	809520	
<hr/>		
		
< 1060	2	
≥ 1060	3	
<hr/>		
[80] Tilt protection device; for application ranges SRH:SRW = > 2:1 up to max. 3:1; can only be used without control unit with Soft function.		
		 2
<hr/>		
	Nº	
Tilt protection device	897049	

4.2.8.2 Diagram A, K – RC 2 / RC 2 N





Application range

SRW: 710 – 2000 mm

SRH: 1072 – 2500 mm

S.kg: max. 250 kg

[1a] Corner drive		With E cam	🛒 2
[1b]		With V cam	🛒 2
			Nº
1	E		260275
1	V		260272

[2a] VT espagnolette										
										Nº
40	1001 – 1200	1090	200	513	1	V	Roto Sil			792185
	1201 – 1600	1290	200	563	1	V	Roto Sil			792188
	1601 – 1800	1690	200	563	1	V	Roto Sil			792190
	1801 – 2400	1890	200	1000	2	V	Roto Sil			792191
	2401 – 2500	2290	200	1000	2	V	Roto Sil			792193

Espagnolette extension, (SRH > 1400 mm); not sh.)					
					Nº
200	Y	–	–		308267
400	Y	–	–		297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal					
					Nº
200	–	–			308267
344	1	V			572665
480	–	–			245729
590	–	–			603442
790	1	E			603444
990	1	E			603447
1190	1	E			603462
1440	1	E			603466

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444

				Nº
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal and vertical					
					Nº
130	Y	1	E		764350

[7] CL component, vertical, on the mullion					
					Nº
200	Y	1	E		450821
400	N	1	E		255280
	Y	1	E		280346
600	N	1	E		255281

Size-specific combinations:

				Nº
1072 – 1300	200 KU	1	E	450821
1301 – 1500	400	1	E	255280
1501 – 1700	400 KU	1	E	280346
	200 KU	1	E	450821
1701 – 1900	400 KU	1	E	280346
	400	1	E	255280
1901 – 2100	400 KU	1	E	280346
	600	1	E	255281
2101 – 2300	400 KU	1	E	280346
	400 KU	1	E	280346
	400	1	E	255280
2301 – 2500	400 KU	1	E	280346
	400 KU	1	E	280346
	600	1	E	255281

[9] Roller unit					
					Nº
41	Left				821686
	Right				823733

[10] Control unit, on the mullion side and in the centre					
					Nº
Alternatively (on the mullion side):					
Control unit set with Soft function →					1
from page 161					2
Activator for Soft function can be used with an asymmetrical screw fixing →					1
from page 163					

				Nº
41	Left			821685
	Right			823730

[*] Control unit set with Soft function, on the locking side → from page 161					
					Nº
					1

[10] Control unit

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736

	
< 1700	3
1701 – 2100	4
> 2100	5

[12] MUL locking cam

	Nº
36	2009487

	
< 1700	3
1701 – 2100	4
> 2100	5

[15] SEC striker to prevent incorrect operation

	Nº
SEC striker to prevent incorrect operation	822796

[16] **Handle**, lockable (200 mm handle length) 1
→ CTL_1

Recessed grip (43 mm distance), not sh. 1
→ CTL_1

[17] SEC striker

	Nº
Screw-on	798226
	
≤ 1800	2
> 1800	3

[18] Buffer 2

	Nº
14	635307

[20] SEC MUL striker

	Nº
Screw-on	833688
	
< 1700	3
1701 – 2100	4
> 2100	5

[22] Drilling protection 1

	Nº
Drilling protection	770965

[24] Pin for anti-pushback function 2

	Nº
36	2009505

[25] Centre closer for anti-pushback function 2

		Nº
41	Left	821687
	Right	823736



INFO

L version: order right components.

R version: order left components.

[26] Striker for anti-pushback function 2

	Nº
Striker for anti-pushback function	810279

[27] Cover cap for SEC MUL striker / striker for anti-pushback function

		Nº
R01.1	Natural silver	828482
R05.3	Medium bronze	828483
R06.2	Jet black	809717
R07.2	Traffic white	819351

	
< 1700	5
1701 – 2100	6
> 2100	7

[33] Stopper for an asymmetrical screw fixing, 1 cannot be used in conjunction with a control unit with SoftOpen and SoftStop on the mul-lion side.

	Nº
Stopper	2027526



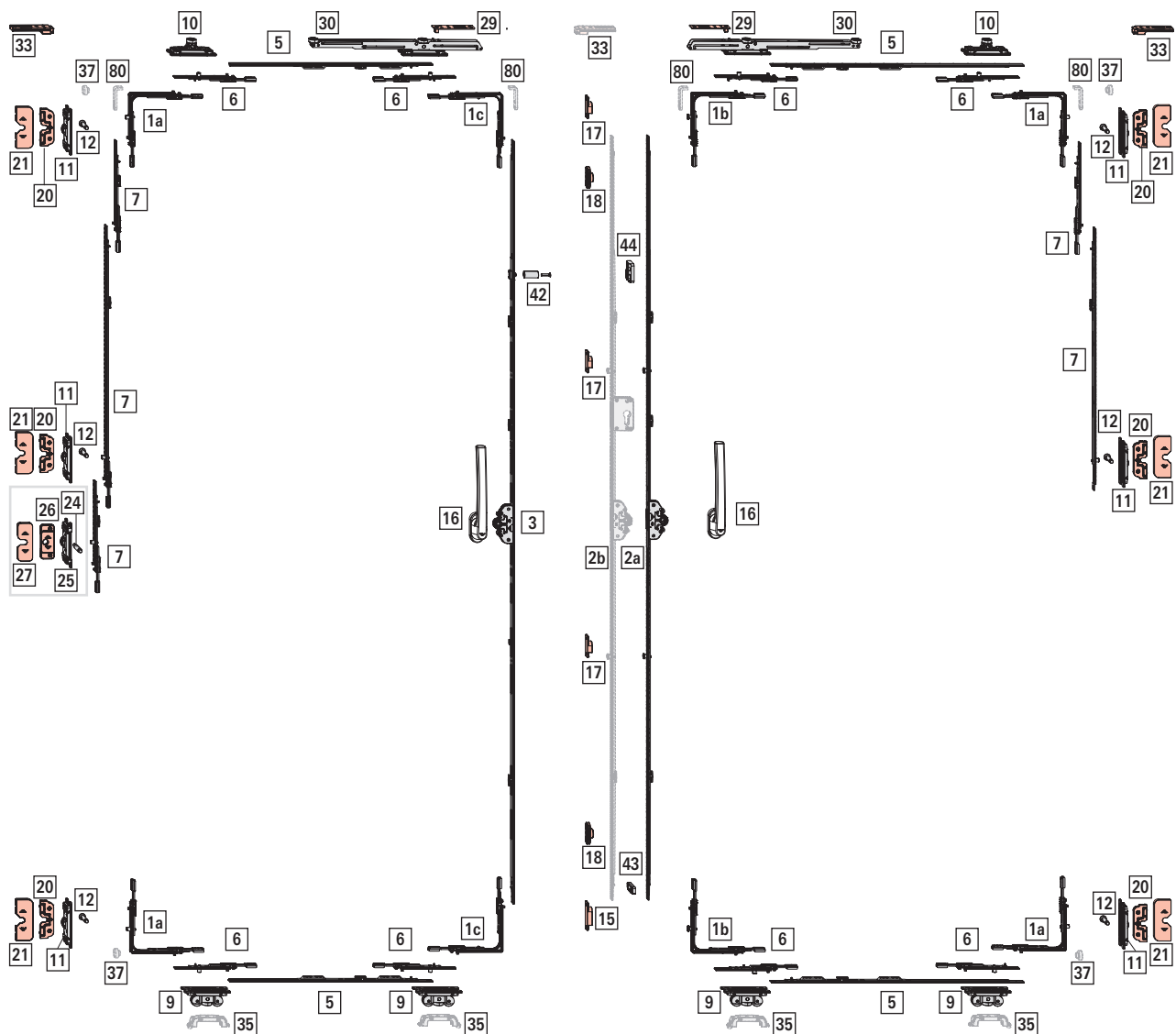
Alternatively

[2b] VT espagnolette, lockable (alternative to 2a)										1
									Nº	
40	1801 – 2400	1890	200	1000	2	V	Roto Sil	795603		
	2401 – 2500	2290	200	1000	2	V	Roto Sil	795604		
[37] Rubber buffer (alternative to 33)										2
									Nº	
14									729179	

Optional

[35] Brush holder				3
			Nº	
Brush holder				809520
[80] Tilt protection device; for application ranges SRH:SRW = > 2:1 up to max. 3:1; can only be used without control unit with Soft function.				2
			Nº	
Tilt protection device				897049
SKG** info clip, not sh.				1
				Nº
SKG** info clip	For clipping onto the gearbox	R07.2	Traffic white	331459

4.2.8.3 Diagram C





Application range

SRW: 710 – 1500 mm

SRH: 600 – 2500 mm

S.kg: max. 250 kg

[1a] Corner drive	With E cam	4
[1b]	With V cam	2
[1c]	Without cam	2
		Nº
1	E	260275
1	V	260272
–	–	339785

[2a] VT espagnolette  1

								Nº
40	600 – 800	690	200	263	–	–	Roto Sil	792143
	801 – 1000	890	200	413	–	–	Roto Sil	792144
	1001 – 1200	1090	200	513	1	V	Roto Sil	792185
	1201 – 1600	1290	200	563	1	V	Roto Sil	792188
	1601 – 1800	1690	200	563	1	V	Roto Sil	792190
	1801 – 2400	1890	200	1000	2	V	Roto Sil	792191
	2401 – 2500	2290	200	1000	2	V	Roto Sil	792193

[3] VT espagnolette, second opening sash								 1
							Nº	
40	600 – 800	690	200	263	–	–	Roto Sil 792143	
	801 – 1000	890	200	413	–	–	Roto Sil 792144	
	1001 – 1200	1090	200	513	–	–	Roto Sil 809645	
	1201 – 1600	1290	200	563	–	–	Roto Sil 809646	
	1601 – 1800	1690	200	563	–	–	Roto Sil 809648	
	1801 – 2400	1890	200	1000	–	–	Roto Sil 809649	
	2401 – 2500	2290	200	1000	–	–	Roto Sil 809651	

Espagnolette extension, (SRH > 1400 mm); not sh.)				
				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal			 4
			Nº
200	—	—	308267
344	1	V	572665
480	—	—	245729
590	—	—	603442
790	1	E	603444
990	1	E	603447
1190	1	E	603462

Size-specific combinations:

First or second opening sash

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
≥ 1460	1190	1	E	603462

[6] Centre lock component 130, horizontal					 8
				Nº	
130	Y	1	E	764350	

[7] CL component, vertical, on the mullion				
				Nº
200	Y	—	—	308267
	Y	1	E	450821
400	Y	—	—	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

First opening sash:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

Second opening sash:

				Nº
600 – 1200	200 KU	1	E	450821
1201 – 1800	600 KU	1	E	255282
	200 KU	1	E	450821
1801 – 2000	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	1	E	450821
2001 – 2200	400 KU	–	–	297858
	600 KU	1	E	255282
	200 KU	1	E	450821
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600 KU	1	E	255282
	200 KU	1	E	450821
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	1	E	450821

[9] Roller unit

		Nº
41	Left	821686
	Right	823733
		
< 1060		4
≥ 1060		6

[10] Control unit, on the mullion side and in the centre  2-4
Alternatively (on the mullion side):
Control unit set with Soft function → *from*  2 *page 161*
Activator for Soft function can be used with an asymmetrical screw fixing → *from* *page 163*  2

		Nº
41	Left	821685
	Right	823730

[*] Control unit set with Soft function, on the locking side → *from* *page 161*  2
Alternatively:
[10] Control unit

Contents:

[*]		#
[29] Activator		1
[30] Control unit with Soft function		1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736

	
≤ 1200	4
1201 – 2400	6
> 2400	8

[12] MUL locking cam

	Nº
36	2009487
	
≤ 1200	4
1201 – 2400	6
> 2400	8

[15] Striker to prevent incorrect operation 1

	Nº
Striker to prevent incorrect operation	822789

[16] Handle (200 mm handle length) → CTL_1  2
Recessed grip (43 mm distance), not sh. →  2 CTL_1

[17] Striker

	Nº
Screw-on	744579
	
≤ 1000	1
1001 – 1800	2
> 1800	3

[18] Buffer 2

	Nº
14	635307

[20] MUL striker

	Nº
Screw-on	793493
	
≤ 1200	4
1201 – 2400	6
> 2400	8



[21] Cover cap for MUL striker, only in combination with MUL striker, screw-on.

		Nº
R01.1	Natural silver	819632
R05.3	Medium bronze	819631
R06.2	Jet black	798979
R07.2	Traffic white	808054
		
≤ 1200		4
1201 – 2400		6
> 2400		8

[24] Pin for anti-pushback function

	Nº
36	2009505

[25] Centre closer for anti-pushback function

		Nº
41	Left	821687
	Right	823736



INFO

L version: order right components.

R version: order left components.

[26] Striker for anti-pushback function

	Nº
Striker for anti-pushback function	810279

[27] Cover cap for striker for anti-pushback function

		Nº
R01.1	Natural silver	828482
R05.3	Medium bronze	828483
R06.2	Jet black	809717
R07.2	Traffic white	819351

[33] Stopper for an asymmetrical screw fixing, cannot be used in conjunction with a control unit with SoftOpen / SoftClose together with SoftStop on the mullion side / SoftStop on the locking side.

	Nº
Stopper	2027526

[*] Operating sequence control set 1
SRH ≥1200 mm, profile-related

	Nº
39.5	2029890
	#
[42] Cam with countersunk screw, M5 x 20	1
[43] Anti-lifting device	1
[44] Striker with buffer	1

Alternatively

[2b] VT espagnolette, lockable (alternative to 2a) → *from page 152*

								Nº
40	1801 – 2400	1890	200	1000	2	V	Roto Sil	795603
	2401 – 2500	2290	200	1000	2	V	Roto Sil	795604

[37] Rubber buffer (alternative to 33)

	Nº
14	729179

Optional

[33] Stopper for an asymmetrical screw fixing, cannot be used in conjunction with a control unit with SoftOpen and SoftStop on the locking side.

	Nº
Stopper	2027526

[35] Brush holder

	Nº
Brush holder	809520

	
< 1060	4
≥ 1060	6

[80] Tilt protection device; for application ranges SRH:SRW = > 2:1 up to max. 3:1; can only be used without control unit with Soft function.

	Nº
Tilt protection device	897049



Application range

SRW: 710 – 2000 mm

SRH: 600 – 2500 mm

S.kg: max. 250 kg

[1a] Corner drive		With E cam	🛒 2
[1b]		With V cam	🛒 2
		Nº	
1	E	260275	
1	V	260272	

[2a] VT espagnolette								🛒 1
								Nº
40	600 – 800	690	200	263	–	–	Roto Sil	792143
	801 – 1000	890	200	413	–	–	Roto Sil	792144
	1001 – 1200	1090	200	513	1	V	Roto Sil	792185
	1201 – 1600	1290	200	563	1	V	Roto Sil	792188
	1601 – 1800	1690	200	563	1	V	Roto Sil	792190
	1801 – 2400	1890	200	1000	2	V	Roto Sil	792191
	2401 – 2500	2290	200	1000	2	V	Roto Sil	792193

Espagnolette extension, (SRH > 1400 mm); not sh.)				
				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal				🛒 2
			Nº	
200	–	–	308267	
344	1	V	572665	
480	–	–	245729	
590	–	–	603442	
790	1	E	603444	
990	1	E	603447	
1190	1	E	603462	
1440	1	E	603466	

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal					🛒 4
				Nº	
130	Y	1	E	764350	

[7] CL component, vertical, on the mullion				
				Nº
200	Y	–	–	308267
	Y	1	E	450821
400	Y	–	–	297858
600	Y	1	E	255282
	N	1	E	255281

Size-specific combinations:

				Nº
1201 – 1800	600	1	E	255281
1801 – 2000	200 KU	–	–	308267
	600	1	E	255281
2001 – 2200	400 KU	–	–	297858
	600	1	E	255281
2201 – 2400	200 KU	1	E	450821
	400 KU	–	–	297858
	600	1	E	255281
> 2400	200 KU	–	–	308267
	600 KU	1	E	255282
	200 KU	–	–	308267
	600	1	E	255281

[9] Roller unit		
		Nº
41	Left	821686
	Right	823733

	🛒
< 1060	2
≥ 1060	3

[10] Control unit, on the mullion side and in the centre → <i>from page 161</i>		🛒 1-2
Alternatively (on the mullion side):		

Control unit set with Soft function (incl. activator) → *from page 161*  1

		Nº
41	Left	821685
	Right	823730

[*] Control unit set with Soft function, on the locking side → *from page 161*  1
Alternatively:

[10] Control unit

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer

		Nº
41	Left	821687
	Right	823736

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[12] MUL locking cam

	Nº
29	2031030

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[15] Striker to prevent incorrect operation 1

	Nº
Striker to prevent incorrect operation	822789

[16] Handle (200 mm handle length) → CTL_1  1
Recessed grip (43 mm distance), not sh. → CTL_1  1

[17] Striker

	Nº
Screw-on	744579

	
≤ 1000	1
1001 – 1800	2
> 1800	3

[18] Buffer 2

	Nº
14	635307

[20] MUL striker

	Nº
Screw-on	793493

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[21] Cover cap for MUL striker, only in combination with MUL striker, screw-on.

		Nº
R01.1	Natural silver	819632
R05.3	Medium bronze	819631
R06.2	Jet black	798979
R07.2	Traffic white	808054

	
≤ 1200	2
1201 – 2400	3
> 2400	4

[33] Stopper, cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side.  1

	Nº
Stopper	800196

[34] Packer (without packer for activator) 3

	
Without control unit with Soft function	3
With one control unit with Soft function	6
With two control units with Soft function	9

	Nº
Packer	800197

Alternatively

[2b] VT espagnolette, lockable (alternative to 2a)  1

								Nº
40	1801 – 2400	1890	200	1000	2	V	Roto Sil	795603
	2401 – 2500	2290	200	1000	2	V	Roto Sil	795604

[37] Rubber buffer (alternative to 33) 2

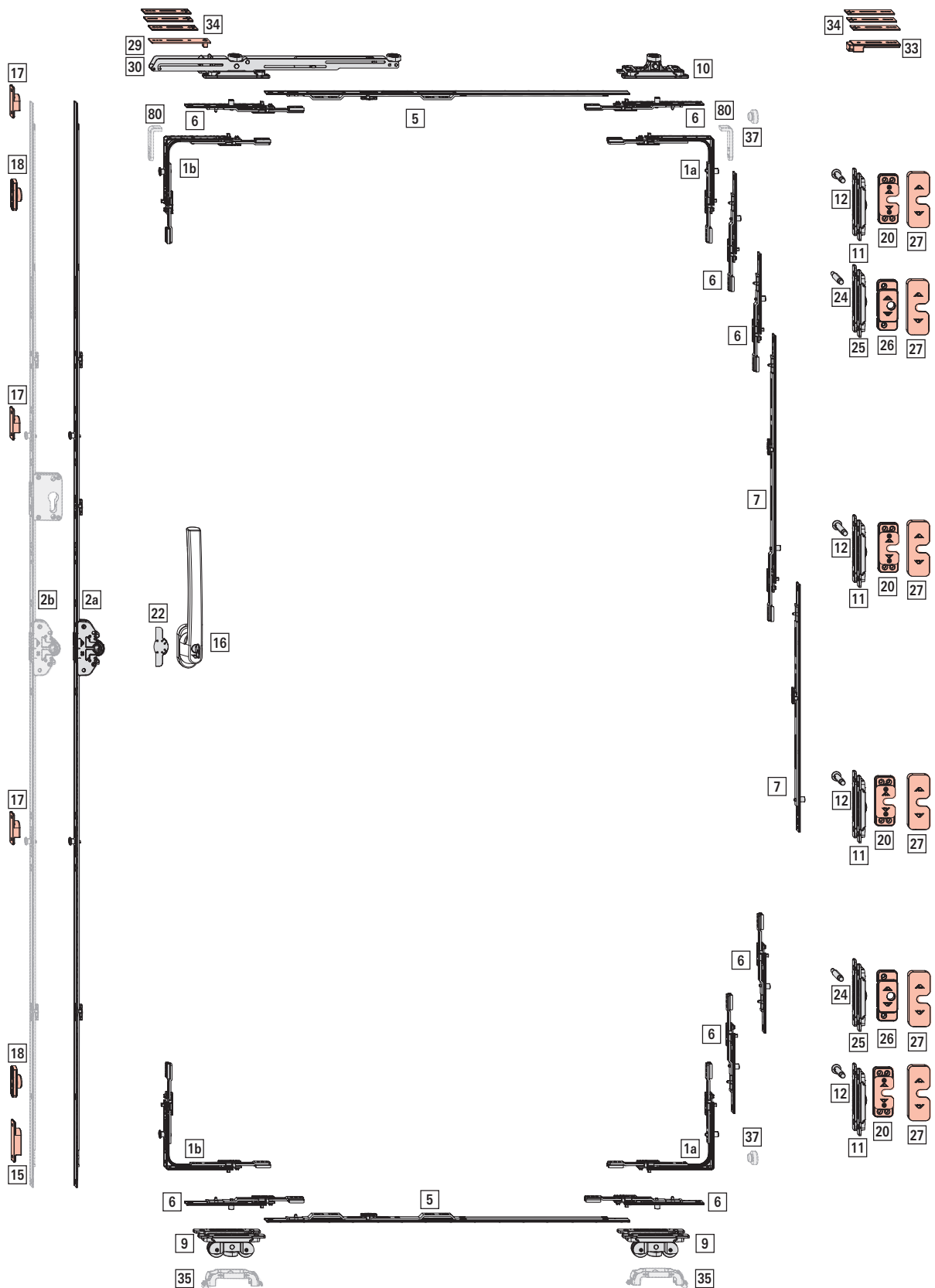
	Nº
14	729179



Optional

[35] Brush holder		
	Nº	
Brush holder	809520	
<hr/>		
		
< 1060	2	
≥ 1060	3	
<hr/>		
[80] Tilt protection device; for application ranges SRH:SRW = > 2:1 up to max. 3:1; can only be used without control unit with Soft function. 		
2		
<hr/>		
	Nº	
Tilt protection device	897049	

4.2.9.2 Diagram A, K – RC 2 / RC 2 N





Application range

SRW: 710 – 2000 mm

SRH: 1072 – 2500 mm

S.kg: max. 250 kg

[1a] Corner drive		With E cam	🛒 2
[1b]		With V cam	🛒 2
		Nº	
1	E	260275	
1	V	260272	

[2a] VT espagnolette								🛒 1
							Nº	
40	600 – 800	690	200	263	–	–	Roto Sil	792143
	801 – 1000	890	200	413	–	–	Roto Sil	792144
	1001 – 1200	1090	200	513	1	V	Roto Sil	792185
	1201 – 1600	1290	200	563	1	V	Roto Sil	792188
	1601 – 1800	1690	200	563	1	V	Roto Sil	792190
	1801 – 2400	1890	200	1000	2	V	Roto Sil	792191
	2401 – 2500	2290	200	1000	2	V	Roto Sil	792193

Espagnolette extension, (SRH > 1400 mm); not sh.)				
				Nº
200	Y	–	–	308267
400	Y	–	–	297858

Size-specific combinations:

				Nº
≤ 1400	–	–	–	–
1401 – 1600	200 KU	–	–	308267
1601 – 2000	–	–	–	–
2001 – 2200	200 KU	–	–	308267
2201 – 2400	400 KU	–	–	297858
> 2400	200 KU	–	–	308267

Centre lock (CL)

[5] Centre lock component, horizontal				🛒 2
			Nº	
200	–	–	308267	
344	1	V	572665	
480	–	–	245729	
590	–	–	603442	
790	1	E	603444	
990	1	E	603447	
1190	1	E	603462	
1440	1	E	603466	

Size-specific combinations:

				Nº
≤ 760	344	1	V	572665
761 – 860	480	–	–	245729
861 – 1060	590	–	–	603442
1061 – 1260	790	1	E	603444
1261 – 1460	990	1	E	603447
1461 – 1660	1190	1	E	603462
1661 – 1910	1440	1	E	603466
> 1910	1440	1	E	603466
	200	–	–	308267

[6] Centre lock component 130, horizontal and vertical				🛒 8
				Nº
130	Y	1	E	764350

[7] CL component, vertical, on the mullion				
				Nº
200	Y	1	E	450821
400	N	1	E	255280
	Y	1	E	280346
600	N	1	E	255281

Size-specific combinations:

				Nº
1072 – 1300	200 KU	1	E	450821
1301 – 1500	400	1	E	255280
1501 – 1700	400 KU	1	E	280346
	200 KU	1	E	450821
1701 – 1900	400 KU	1	E	280346
	400	1	E	255280
1901 – 2100	400 KU	1	E	280346
	600	1	E	255281
2101 – 2300	400 KU	1	E	280346
	400 KU	1	E	280346
	400	1	E	255280
2301 – 2500	400 KU	1	E	280346
	400 KU	1	E	280346
	600	1	E	255281

[9] Roller unit			🛒 3
		Nº	
41	Left	821686	
	Right	823733	

[10] Control unit, on the mullion side and in the centre → <i>from page 161</i>			🛒 1-2
Alternatively (on the mullion side):			
Control unit set with Soft function (incl. activator) → <i>from page 161</i>			🛒 1
		Nº	
41	Left	821685	
	Right	823730	

[*] Control unit set with Soft function , on the locking side → <i>from page 161</i> 		
Alternatively:		
[10]	Control unit	

Contents:

[*]		#
[29]	Activator	1
[30]	Control unit with Soft function	1

[11] Centre closer		
		Nº
41	Left	821687
	Right	823736

	
< 1700	3
1701 – 2100	4
> 2100	5

[12] MUL locking cam		
		Nº
29		2031030

	
< 1700	3
1701 – 2100	4
> 2100	5

[15] SEC striker to prevent incorrect operation		
		Nº
SEC striker to prevent incorrect operation		822796

[16] Handle , lockable (200 mm handle length) → CTL_1 		
Recessed grip (43 mm distance), not sh. → CTL_1 		

[17] SEC striker	
	Nº
Screw-on	798226
	
≤ 1800	2
> 1800	3

[18] Buffer		
		Nº
14		635307

[20] SEC MUL striker		
		Nº
Screw-on		833688

	
< 1700	3
1701 – 2100	4
> 2100	5

[22] Drilling protection		
		Nº
Drilling protection		770965

[24] Pin for anti-pushback function		
		Nº
29		2031031

[25] Centre closer for anti-pushback function		
		Nº
41	Left	821687
	Right	823736

	INFO
	L version: order right components.
	R version: order left components.

[26] Striker for anti-pushback function		
		Nº
Striker for anti-pushback function		810279

[27] Cover cap for SEC MUL striker / striker for anti-pushback function		
		Nº
R01.1	Natural silver	828482
R05.3	Medium bronze	828483
R06.2	Jet black	809717
R07.2	Traffic white	819351

	
< 1700	5
1701 – 2100	6
> 2100	7

[33] Stopper , cannot be used in conjunction with a control unit with SoftOpen and Soft-Stop on the mullion side.		
		Nº
Stopper		800196



[34] Packer (without packer for activator) 	
	
Without control unit with Soft function	3
With one control unit with Soft function	6
With two control units with Soft function	9
	
Nº	
Packer	800197

Alternatively

[2b] VT espagnolette, lockable (alternative to 2a) 	
         	
40	1801 – 2400 1890 200 1000 2 V Roto Sil 795603
	2401 – 2500 2290 200 1000 2 V Roto Sil 795604
Nº	
[37] Rubber buffer (alternative to 33) 	
	
Nº	
14	729179

Optional

[35] Brush holder 	
	
Nº	
Brush holder	809520
[80] Tilt protection device; for application ranges SRH:SRW = > 2:1 up to max. 3:1; can only be used without control unit with Soft function. 	
	
	
Nº	
Tilt protection device	897049
SKG** info clip, not sh. 	
   	
Nº	
SKG** info clip	For clipping onto the gearbox R07.2 Traffic white 331459

5 Espagnolettes

5.1 VT espagnolette

5.1.1 Backset 25, 30, 35, 40, 50 mm

Not lockable



									Nº
25	600 – 800	690	200	263	–	–	–	–	793942
	801 – 1000	890	200	413	–	–	–	–	793943
	1001 – 1200	1090	200	513	1	V	–	–	793944
	1201 – 1600	1290	200	563	1	V	–	–	793975
	1601 – 1800	1690	200	563	1	V	–	–	793977
	1801 – 2400	1890	200	1000	2	V	–	–	793978
30	2401 – 2500	2290	200	1000	2	V	–	–	793980
	600 – 800	690	200	263	–	–	–	–	785912
	801 – 1000	890	200	413	–	–	–	–	785913
	1001 – 1200	1090	200	513	1	V	–	–	785914
	1201 – 1600	1290	200	563	1	V	–	–	785915
	1601 – 1800	1690	200	563	1	V	–	–	785917
35	1801 – 2400	1890	200	1000	2	V	–	–	785918
	2401 – 2500	2290	200	1000	2	V	–	–	785920
	600 – 800	690	200	263	–	–	–	–	799045
	801 – 1000	890	200	413	–	–	–	–	798027
	1001 – 1200	1090	200	513	1	V	–	–	798028
	1201 – 1600	1290	200	563	1	V	–	–	798030
40	1601 – 1800	1690	200	563	1	V	–	–	798031
	1801 – 2400	1890	200	1000	2	V	–	–	798032
	2401 – 2500	2290	200	1000	2	V	–	–	798033
	600 – 800	690	200	263	–	–	–	–	792143
	801 – 1000	890	200	413	–	–	–	–	792144
	1001 – 1200	1090	200	513	1	V	–	–	792185
50	1201 – 1600	1290	200	563	1	V	–	–	792188
	1601 – 1800	1690	200	563	1	V	–	–	792190
	1801 – 2400	1890	200	1000	2	V	–	–	792191
	2401 – 2500	2290	200	1000	2	V	–	–	792193
	600 – 800	690	200	263	–	–	–	–	785921
	801 – 1000	890	200	413	–	–	–	–	785922
50	1001 – 1200	1090	200	513	1	V	–	–	785923
	1201 – 1600	1290	200	563	1	V	–	–	785924
	1601 – 1800	1690	200	563	1	V	–	–	785926
	1801 – 2400	1890	200	1000	2	V	–	–	785927
	2401 – 2500	2290	200	1000	2	V	–	–	785929



Lockable



					#			Nº
25	1801 – 2400	1890	200	1000	2	V	Roto Sil	798285
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798286
30	1801 – 2400	1890	200	1000	2	V	Roto Sil	798287
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798288
35	1801 – 2400	1890	200	1000	2	V	Roto Sil	798034
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798055
40	1801 – 2400	1890	200	1000	2	V	Roto Sil	795603
	2401 – 2500	2290	200	1000	2	V	Roto Sil	795604
50	1801 – 2400	1890	200	1000	2	V	Roto Sil	798218
	2401 – 2500	2290	200	1000	2	V	Roto Sil	798219

Second opening sash

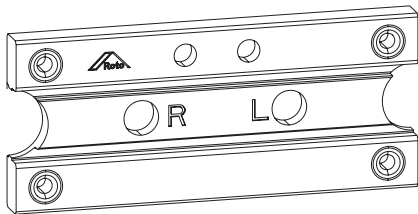


					#			Nº
25	600 – 800	690	200	263	–	–	–	793942
	801 – 1000	890	200	413	–	–	Roto Sil	793943
	1001 – 1200	1090	200	513	–	–	Roto Sil	809691
	1201 – 1600	1290	200	563	–	–	Roto Sil	809692
	1601 – 1800	1690	200	563	–	–	Roto Sil	809694
	1801 – 2400	1890	200	1000	–	–	Roto Sil	809695
	2401 – 2500	2290	200	1000	–	–	Roto Sil	809697
30	600 – 800	690	200	263	–	–	Roto Sil	785912
	801 – 1000	890	200	413	–	–	Roto Sil	785913
	1001 – 1200	1090	200	513	–	–	Roto Sil	809654
	1201 – 1600	1290	200	563	–	–	Roto Sil	809685
	1601 – 1800	1690	200	563	–	–	Roto Sil	809687
	1801 – 2400	1890	200	1000	–	–	Roto Sil	809688
	2401 – 2500	2290	200	1000	–	–	Roto Sil	809690
35	600 – 800	690	200	263	–	–	Roto Sil	799045
	801 – 1000	890	200	413	–	–	Roto Sil	798027
	1001 – 1200	1090	200	513	–	–	Roto Sil	809658
	1201 – 1600	1290	200	563	–	–	Roto Sil	809662
	1601 – 1800	1690	200	563	–	–	Roto Sil	809668
	1801 – 2400	1890	200	1000	–	–	Roto Sil	809669
	2401 – 2500	2290	200	1000	–	–	Roto Sil	809653
40	600 – 800	690	200	263	–	–	Roto Sil	792143
	801 – 1000	890	200	413	–	–	Roto Sil	792144
	1001 – 1200	1090	200	513	–	–	Roto Sil	809645
	1201 – 1600	1290	200	563	–	–	Roto Sil	809646
	1601 – 1800	1690	200	563	–	–	Roto Sil	809648
	1801 – 2400	1890	200	1000	–	–	Roto Sil	809649
	2401 – 2500	2290	200	1000	–	–	Roto Sil	809651
50	600 – 800	690	200	263	–	–	Roto Sil	785921
	801 – 1000	890	200	413	–	–	Roto Sil	785922
	1001 – 1200	1090	200	513	–	–	Roto Sil	809604
	1201 – 1600	1290	200	563	–	–	Roto Sil	809605
	1601 – 1800	1690	200	563	–	–	Roto Sil	809607
	1801 – 2400	1890	200	1000	–	–	Roto Sil	809608
	2401 – 2500	2290	200	1000	–	–	Roto Sil	809610

6 Jigs / tools

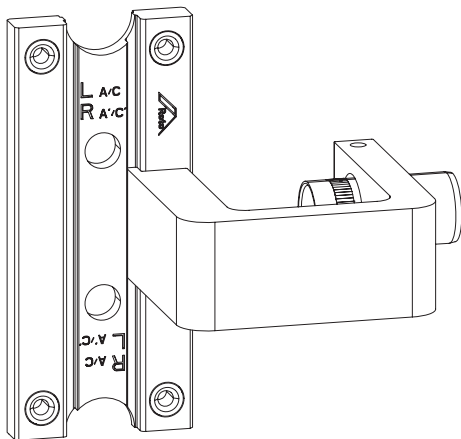
6.1 Drilling jigs

6.1.1 Roller unit / control unit



				Nº
Timber	–	–	41	836948
PVC	–	–	41	836947
	Salamander	evolutionDrive Plus+	41	2006575

6.1.2 Centre closer



INFO

Use of a drilling jig with Ø 14.0 is mandatory for the centre closer, adjustable.

For centre closer: Ø 12.0

				Nº
Timber	–	–	41	893971
PVC	–	–	41	893970
	Salamander	evolutionDrive Plus+	41	2006576

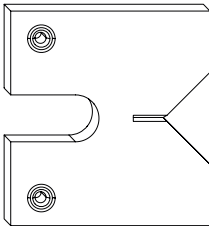
For centre closer, adjustable: Ø 14.0

				Nº
Timber	–	–	41	836943
PVC	–	–	41	836942



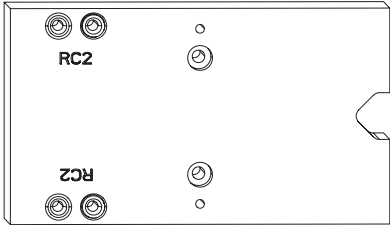
6.1.3 Strikers

Mullion striker



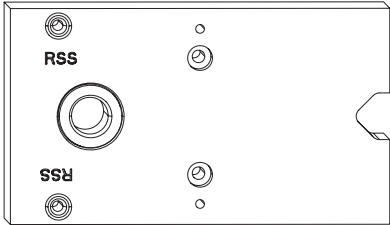
			Nº
Aluplast smart-slide	Fixed mullion MUL 140041		811973
	Fixed mullion MUL 140045		807972
Aluplast smart-slide neo	Fixed mullion MUL 160041		2027924
	Fixed mullion MUL 160043		2009993
Gealan Smoovio	Fixed mullion MUL 5862		809328
Rehau	Synego Slide		836201
Salamander	evolutionDrive Plus+		897743
ASAŞ	Inova		825052
DECCO	Fixed mullion MUL 8230		2007236
	Fixed mullion MUL 8236		858855
Veka	Fixed mullion MUL 102.352		2007002
	Fixed mullion MUL 102.357		861488
Deceuninck	Legend Slide Plus		2031045

Mullion security striker



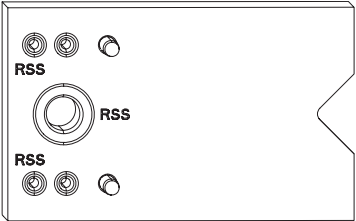
			Nº
Aluplast smart-slide	Fixed mullion MUL 140045		834696
Gealan Smoovio	Fixed mullion MUL 5862		834689

Striker for anti-pushback function



			Nº
Aluplast smart-slide	Fixed mullion MUL 140045		834697
Gealan Smoovio	Fixed mullion MUL 5862		834695

Mullion security striker and striker for anti-pushback function

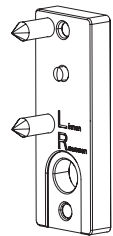


			Nº
Aluplast smart-slide neo	Fixed mullion MUL 160041		2027878
	Fixed mullion MUL 160043		2032124
Rehau	Synego Slide		838582
Salamander	evolutionDrive Plus+		897744
ASAŞ	Inova		2006000
DECCO	Fixed mullion MUL 8230		2007237
	Fixed mullion MUL 8236		858844
Veka Move 76	Fixed mullion MUL 102.352		2029900
	Fixed mullion MUL 102.357		2005737
Deceuninck	Legend Slide Plus		2031046

Other jigs are available upon request.

6.1.4 Marker

Striker, screw-on, centre screw fixing



			Nº
Marker for striker T / PVC, screw-on	Can be used with a centre screw fixing	Espagnolette side	772626

6.1.5 Drilling aid

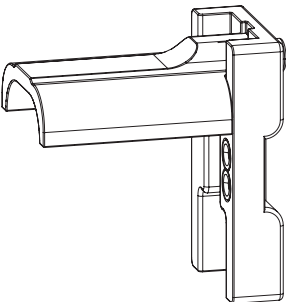
For activator and stopper positioning jigs



		Nº
Drilling aid for roller track and guide track		778521



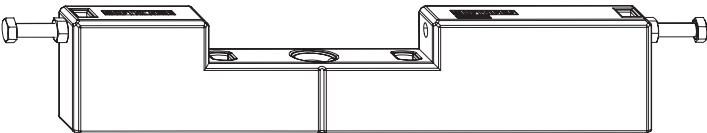
6.1.6 Tilt protection device



	Nº
Top	2000345

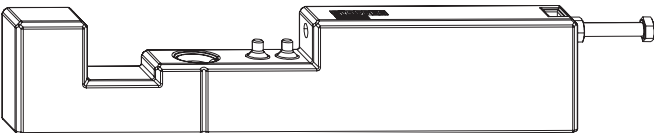
6.2 Positioning jigs

6.2.1 Activator



		Nº
Drilling jig for activator	Can be used with a centre screw fixing	2005536
	Can be used with an asymmetrical screw fixing	2029404

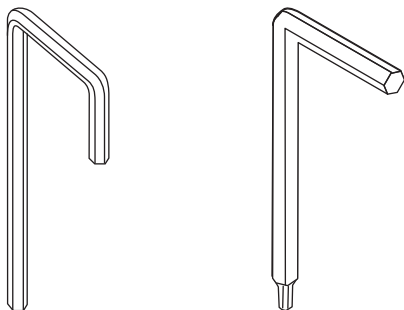
6.2.2 Stopper



		Nº
Drilling jig for stopper	Can be used with a centre screw fixing	2005537
	Can be used with an asymmetrical screw fixing	2029405

6.3 Tools

6.3.1 Hex keys



		Nº
4 mm hex key		208609
Hex key: 2.5 / 4.0 mm		230764



6.3.4 Mitre pliers

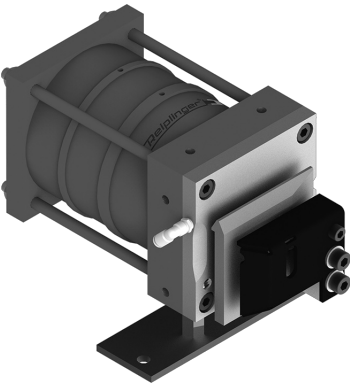
For Deventer gaskets



		Nº
DSV 1521/L notch pliers	With integrated seal-insertion roller tool; for cutting seals at 90°	798833

6.4 Punches

6.4.1 Pneumatic punch – PS 100



			Nº
Pneumatic punch – PS 100	For offset cuts	Left	553992
		Right	553993

Accessories

		Nº
Foot control for pneumatic punch	–	554096
Hand control for pneumatic punch	–	554097

		Nº
Ruler	Left	230758
	Right	230759
VT calliper	Left	632972
	Right	632973

6.4.2 Hydropneumatic punch – DUO



			Nº
Hydropneumatic punch – DUO	For offset cuts	Left	262155
		Right	262156

Accessories

		Nº
Foot control for hydropneumatic punch	–	230760
Hand control for hydropneumatic punch	–	230761

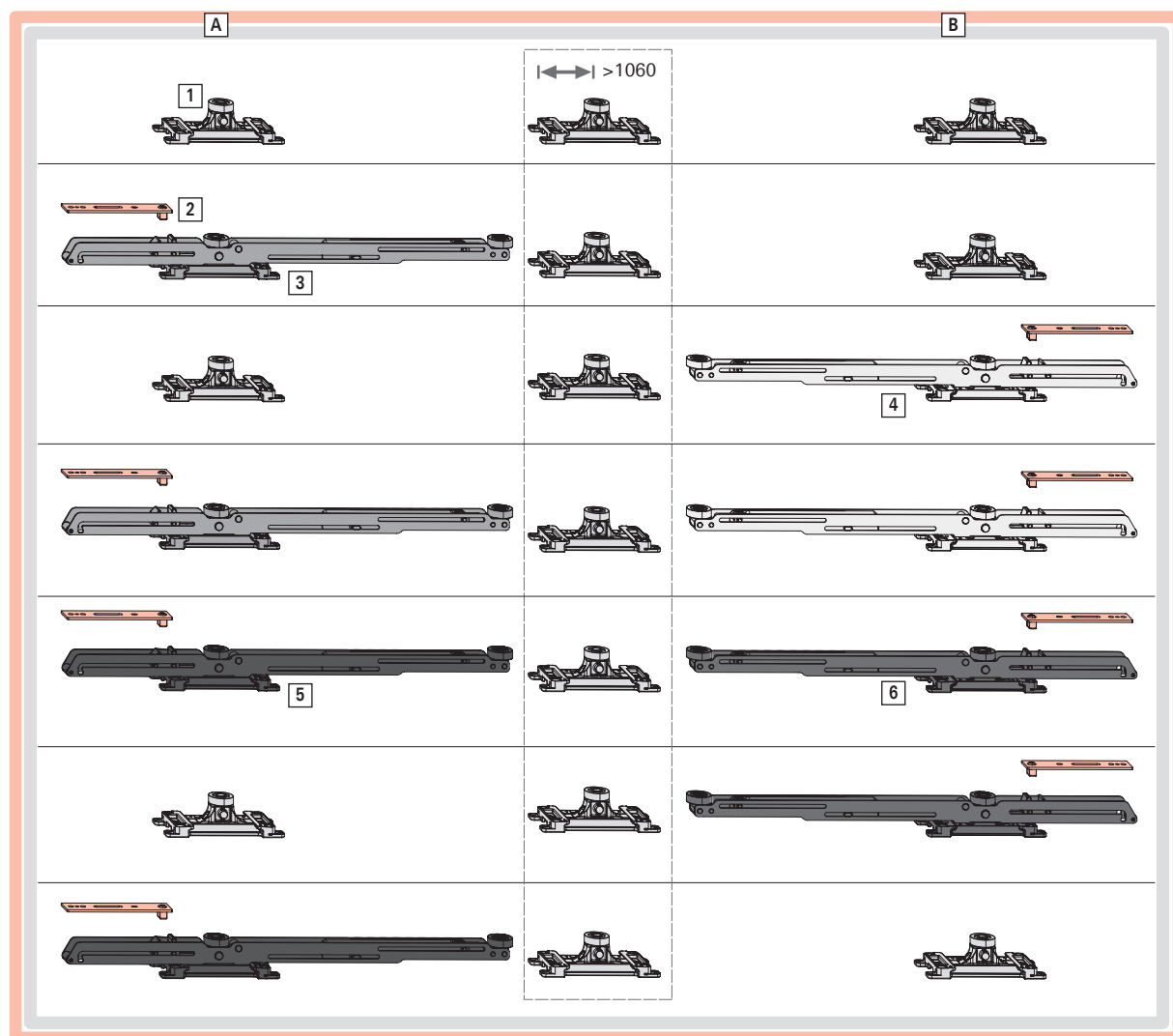
		Nº
Ruler	Left	230758
	Right	230759
VT calliper	Left	632972
	Right	632973



7 Accessories

7.1 Control unit with Soft function

Positioning options for the control unit



[A] On the locking side

[B] On the mullion side

[1] Control unit without Soft function

[2] Activator for control unit with Soft function

[3] Control unit with SoftClose

[4] Control unit with SoftOpen

[5] Control unit with SoftStop on the locking side

[6] Control unit with SoftStop on the mullion side

Control unit	S.kg	Min. SRW	Alignment	Position	Function
Without Soft function	≤ 200 kg	710	–	On the espagnolette side, on the mullion side	–
	–	1060	–	Centred	Supports the sash
With SoftClose	≤ 200 kg	710* / 920**	Additional control roller faces towards the centre of the sash	On the locking side	Damps the movement of the sash in the locking direction and draws it slowly closed.

Control unit	S.kg	Min. SRW	Alignment	Position	Function
With SoftStop	> 200 kg	710* / 920**	Additional control roller faces away from the centre of the sash	On the locking side	Damps the movement of the sash in the locking direction.
			Additional control roller faces towards the centre of the sash	On the mullion side	Damps the movement of the sash in the opening direction.
With SoftOpen	≤ 200 kg	710* / 920**	Additional control roller faces towards the centre of the sash	On the mullion side	Damps the movement of the sash in the opening direction and draws it slowly into the final position.

* Min. SW with one control unit with Soft function

** Min. SW with two control units with Soft function

Control unit set with SoftClose (incl. activator)

SRW ≥ 710 mm

Installation position: at the top of the locking side



INFO

Order the activator for an asymmetrical screw fixing (as a replacement for the activator from the control unit set) for the following profile systems:

- aluplast | smart-slide neo
- Veka | Move

					Nº
Espagnolette side	41	100 kg	≤ 100 kg	Left	837235
				Right	837152
		200 kg	100 kg to 200 kg	Left	837236
				Right	837153

Control unit set with SoftOpen (incl. activator)

Installation position: at the top of the mullion side



INFO

Order the activator for an asymmetrical screw fixing (as a replacement for the activator from the control unit set) for the following profile systems:

- aluplast | smart-slide neo
- Veka | Move

					Nº
Mullion side	41	100 kg	≤ 100 kg	Left	838569
				Right	838566
		200 kg	100 kg to 200 kg	Left	838570
				Right	838567



Control unit set with SoftStop (incl. activator)



INFO

Control units with SoftStop are only possible in conjunction with an end stop.

Installation position: at the top of the mullion side / at the top of the locking side

						Nº
Espagnolette side	41	250 kg	> 200 kg to 250 kg		Left	837237
					Right	837154
Mullion side					Left	838571
					Right	838568

7.2 Activator spare part for control unit with Soft function

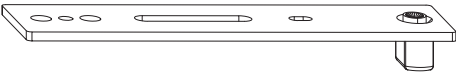
The activator for a centre screw fixing is included in the control unit set.



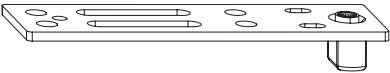
INFO

Order the activator for an asymmetrical screw fixing (as a replacement for the activator from the control unit set) for the following profile systems:

- aluplast | smart-slide neo
- Veka | Move

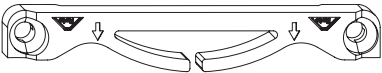


		Nº
Activator for soft function	Can be used with a centre screw fixing	837318



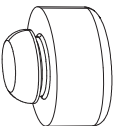
		Nº
Activator for soft function	Can be used with an asymmetrical screw fixing	2027528

7.3 Centring unit for control unit with / without Soft function



	Nº
41	2027477

7.4 Rubber buffer



		Nº
	16.5	780647
	17.5	798249

7.5 End stop with packer

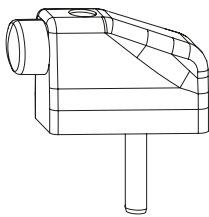
As an alternative to the rubber buffer



INFO

Pay attention to the profile assessment.

End stop



			Nº
End stop	RAL 7004	Signal grey	2006569
	RAL 9005	Jet black	349600

Support plate for end stop, profile-related

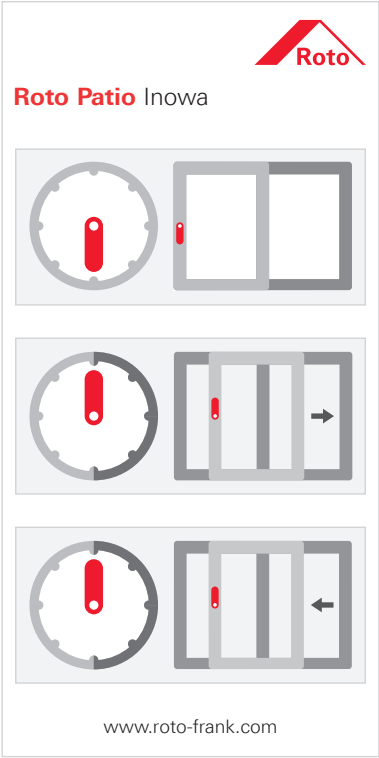


			Nº
Packer	RAL 7004	Signal grey	2007421
	RAL 9005	Jet black	477263



7.6 Label

Diagram A



		Nº
Label indicating the operating sequence, diagram A		811486

Diagram C

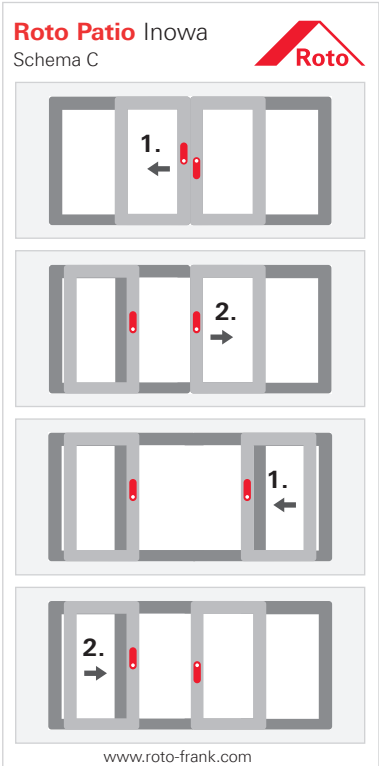


Fig. 7.1: Figure for installation of left version of first opening sash

			Nº
Label indicating the operating sequence, diagram C		Left	823251
		Right	823250



8 Brief instructions

8.1 Diagram A, A', K, K'

Summary of IMO 403

	Installation sequence	Note	Page reference	Timber	PVC
Sash	Crop the hardware components.		→ from page 176	■	■
	Install the adapter profile.		→ from page 177	–	■
	Install the corner drives.	Align the cam vertically.	→ from page 180	■	■
	Install the centre lock, vertical on the locking side.	Size-dependent		■	■
	Install the espagnolette.	Insert with the arrow pointing up.	→ from page 181	■	■
	Install the centre locks.	CL 130, horizontal at the top and bottom. Horizontal at the top and bottom (size-dependent). Vertical on the mullion side (size-dependent).	→ from page 181	■	■
	Install the handle.		→ from page 182	■	■
	Install the roller units.	Timber: must not be pushed into the timber. Adapt the insertion torque if necessary.	→ from page 183	■	■
	Install the control unit.	Alternatively: install the control unit with Soft function → from page 161. Timber: must not be pushed into the timber. Adapt the insertion torque if necessary.	→ from page 185	■	■
	Install the centre closers with mullion locking cams.	Timber: must not be pushed into the timber. Adapt the insertion torque if necessary.	→ from page 187	■	■
Frame	Install the roller track.	Length: FIW - 2	→ from page 200	■	■
	Install the operator track.	Length: (FIW - 2) / 2 Screw down in the access area.	→ from page 203	■	■
	Install the adapter profile.	Only applicable to Salamander evolutionDrive Plus+.	→ from page 206	–	■
	Install the gasket pads.	Only applicable to Salamander evolutionDrive Plus+.	→ from page 207	–	■
Joining the sash and frame	Install the operator track.	Length: (FIW - 2) / 2 Screw down in the fixed glazing area.	→ from page 203	■	■
	Place the sash on the roller track.	Move the handle to the sliding position.	→ from page 209	■	■
	Install strikers.	Note the point of entry.	→ from page 213	■	■
	Install the striker to prevent incorrect operation.		→ from page 221	■	■
	Install the mullion strikers.		→ from page 223	■	■
	Install the activator.	Only with control unit with Soft function.	→ from page 227	■	■
	Tension the control unit with Soft function .	Only tension the control unit with Soft function using a tensioning tool.	→ from page 232	■	■
	Installing the tilt protection device	For application ranges SRH:SRW ≥ 2:1 up to max. 3:1; can only be used without control unit with Soft function.	→ from page 233		■
	Install the buffer.		→ from page 235	■	■
Final acceptance	Install the stopper.		→ from page 238	■	■
	Install the element.	Place supports under the threshold every 300 mm across its entire area. Max. permitted unevenness of the entire threshold: 3 mm. We recommended that you place supports under the threshold across its entire area.	→ from page 242	■	■
	Adjust the hardware.		→ from page 247	■	■
	Lubricate the hardware.		→ from page 253	■	■
	Check the handle operating torque.	Operating torque ≤ 10 Nm		■	■

9 Installation

9.1 Processing instructions

Maximum sash sizes and weights

The specifications, application diagrams and component assignments which can be found in the hardware manufacturer's product-specific documents provide information on the maximum permitted sash sizes and weights. The component with the lowest permitted load bearing capacity determines the maximum permitted sash weight.

- Before using electronic data records and implementing them in window fabrication programs in particular, check that they match the specifications, application diagrams and component assignments.
- Never exceed the maximum permitted sash sizes and weights. If any points are unclear, contact the hardware manufacturer.

Specifications from profile manufacturers

The element manufacturer must comply with all specified system dimensions (e.g. gasket gap dimensions or locking distances).

They must continue to ensure and check this on a regular basis, especially when new hardware components are used for the first time, during production and on a continuous basis, up to and including element installation.



INFO

The hardware components are always designed in such a way that any system dimensions affected by the hardware can be adjusted. The hardware manufacturer shall not be liable for any additional expenses incurred if a deviation from these dimensions is not discovered until after the element has been installed.

Combining hardware

Burglar inhibiting elements need hardware which meets special requirements.

Elements for wet rooms and those for use in environments with aggressive, corrosive constituents in the air require hardware that meets special requirements.

The resistance of elements to wind loads when they are closed and locked depends on the individual design of the element. The hardware system is capable of handling wind loads specified by legislation and standards (for example in accordance with EN 12210 – especially test pressure P3).

Coordinate suitable hardware combinations and installation procedures in elements with the hardware manufacturer and profile manufacturer for the areas listed above, and conclude a separate agreement for them.



INFO

The hardware manufacturer's specifications on the combination of hardware (e.g. the use of additional scissor stays, the design of hardware for burglar-inhibiting elements, etc.) are binding.

Installation surfaces

The frame and sash grooves must be free from construction materials (such as plaster, gypsum). The sash groove must be free from welding residue to ensure an optimum supporting surface for the hardware components.

Specifications relating to installation and care



ATTENTION

Sealing compounds that contain silicone may cause property damage.

Sealing compounds that contain silicone may considerably reduce the sealing effect near the threshold after three to five years.

- ▶ Only use silicone-free sealing compounds to seal the threshold.

Remove excess sealing compound after installation.



ATTENTION

Using incorrect cleaning agents and sealing compounds may cause property damage.

Cleaning agents and sealing compounds may damage the surfaces of components and gaskets.

- ▶ Do not use aggressive or flammable liquids, acidic cleaners or abrasive cleaners.
- ▶ Only use mild, pH-neutral cleaning agents that have been diluted.
- ▶ Apply a thin protective film to the components, for example using a cloth soaked in oil.
- ▶ Avoid aggressive vapours (e.g. produced by formic acid, acetic acid, ammonia, amine compounds, ammonia compounds, aldehyde, carboric acid, chlorine, tannic acid) around the element.
- ▶ Do not use any acetic acid-crosslinking or acid-crosslinking sealing compounds or those with the aforementioned constituents as both direct contact with the sealing compound and its fumes can corrode the surface of the components.

9.2 Screw connections



DANGER

Incorrectly installed or screwed-in hardware components present a risk of death.

Incorrectly installed and screwed-in hardware components may lead to hazardous situations and cause serious or fatal accidents.

- ▶ During installation and screwdriving work, observe the specifications provided by the profile manufacturer; contact the profile manufacturer if necessary.
- ▶ Use the recommended screws.
- ▶ Select the length of the screws according to the profiles used.
- ▶ Ensure that the hardware components are adequately secured; contact the screw manufacturer if necessary.



ATTENTION

Using incorrect screw material may cause property damage.

Using the wrong screws may damage the components.

- ▶ Only use galvanised zinc-plated and passivated steel screws.
- ▶ Use screws with additional sealing in more challenging climatic conditions.
- ▶ Use stainless-steel screws on stainless-steel components only.
- ▶ For aluminium components, use screws made of steel (coated with zinc-nickel or zinc flakes) or stainless steel.



ATTENTION

Improper screw fixings may cause property damage.

Improper screw fixings may damage the components and the element as a whole, and stop them from working properly.

- ▶ Unless stated otherwise, turn screws in straight.
- ▶ Tighten screw heads until they are flush with the surface.
- ▶ Do not over-tighten screws. Note the torque. Choose a torque that will not deform the hardware and profile. Define profile-specific torques on the basis of the demo assembly.
- ▶ Use the recommended screws.
- ▶ Select the length of the screws according to the profiles used.

9.2.1 Overview



WARNING

Incorrect screw connections may pose a risk of death!

Hardware components can be pulled out of the sash if they are not screwed through a profile wall that is at least 6 mm thick in total or screwed down using rivet nuts.

- Select the length of the screws so that they will hold in the aluminium profile. Alternatively, insert additional aluminium profiles.



WARNING

Incorrect screw connections may pose a risk of death!

Short screws will not reach the steel reinforcement and will therefore not hold.

Hardware components can be pulled out of the sash if they are not screwed into the steel reinforcement.

- Select the length of the screws so that they will hold in the steel reinforcement.



ATTENTION

Property damage due to choosing the wrong screws!

Self-drilling screws may damage important functional elements of a component when screwed in.

- Use screws without a self-tapping thread.



ATTENTION

Protruding screw heads may cause property damage.

Protruding screw heads can damage adjoining materials.

- Tighten screw heads until they are flush with the surface.

Timber

Components	Quantity	Size	Diameter to be drilled	Drive
Corner drive	2	ST4.0 x ...	3.0	Not specified
Espagnolette / centre locks	...	ST4.0 x ...	3.0	Not specified
Roller unit	4	ST4.0 x ...	3.0	Not specified
Control unit	4	ST4.0 x ...	3.0	Not specified
Centre closer	4	ST4.0 x ...	3.0	Not specified
Mullion striker / striker for anti-pushback function	2	ST4.0 x ...	3.0	Not specified
Striker / buffer	2	ST4.0 x ...	3.0	Not specified
Roller track / operator track	...	ST3.9 – 4.0 x ...	3.0	Not specified
Activator / stopper	3	ST4.0 x ...	3.0	Not specified
Tilt protection device	2	ST4.0 x ...	3.0	Not specified
Roto Line handle	2	M5 x ...	10.0 / 12.0	Cross-head

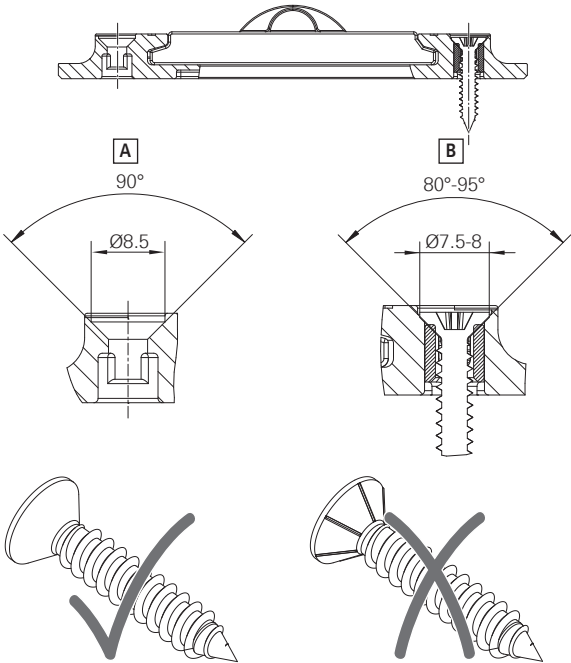
PVC

Components	Quantity	Size	Diameter to be drilled	Drive
Corner drive	2	ST3.9 – 4.1 x ...	3.5	Not specified
Espagnolette / centre locks	...	ST3.9 – 4.1 x ...	3.5	Not specified
Roller unit	4	ST3.9 – 4.1 x ...	3.5	Not specified
Control unit	4	ST3.9 – 4.1 x ...	3.5	Not specified
Centre closer	4	ST3.9 – 4.1 x ...	3.5	Not specified
Mullion striker / striker for anti-pushback function	2	ST3.9 – 4.1 x ...	3.5	Not specified
Striker / buffer	2	ST3.9 – 4.1 x ... Only applicable to Salamander evolutionDrive Plus+: ST3.5 – 4.2 x 15 – 25 ...	3.0 – 3.5 (depending on the screw)	Not specified
SEC striker	2	ST3.9 – 4.1 x ...	3.5	Not specified
Roller track / operator track	...	ST3.5 – 3.9 x ...	3.0	Not specified
Sash adapter profile	...	ST4.2 x 30	3.5	Not specified
Activator / stopper	3	ST3.9 – 4.1 x ...	3.5	Not specified



Components	Quantity	Size	Diameter to be drilled	Drive
Tilt protection device	2	ST3.9 – 4.1 x ...	3.5	Not specified
Roto Line handle	2	M5 x ...	10.0 / 12.0	Cross-head

Specifications for selecting screws



- [A] Specifications relating to the countersink
[B] Specifications relating to the screw head for selecting screws



ATTENTION

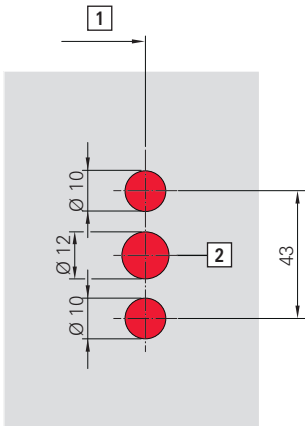
Property damage due to inserting screws with ribs on the underside of the screw head!

Ribs on the underside of the screw head may damage important functional elements of a component when screwed in.

- Use screws with screw heads which do not have ribs on the underside.

9.3 Drilling and routing dimensions

9.3.1 VT espagnolette



Drill holes for the handle's sprocket and lugs

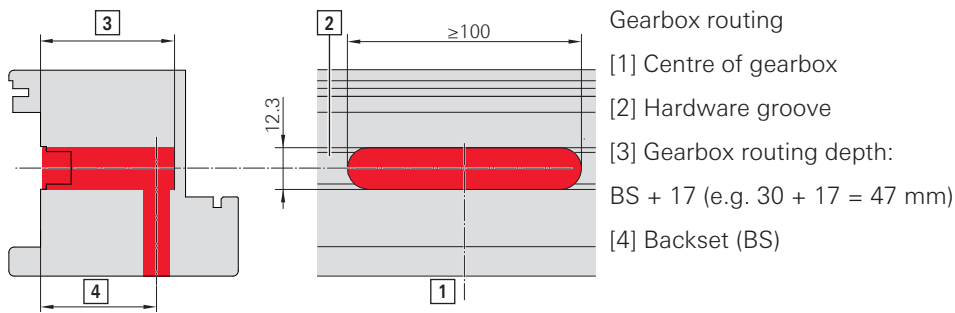
- [1] Backset
[2] Handle height

Drilling depth = overlap height + 16 (for countersunk screws in accordance with ISO 7046-1 M5 x ...)

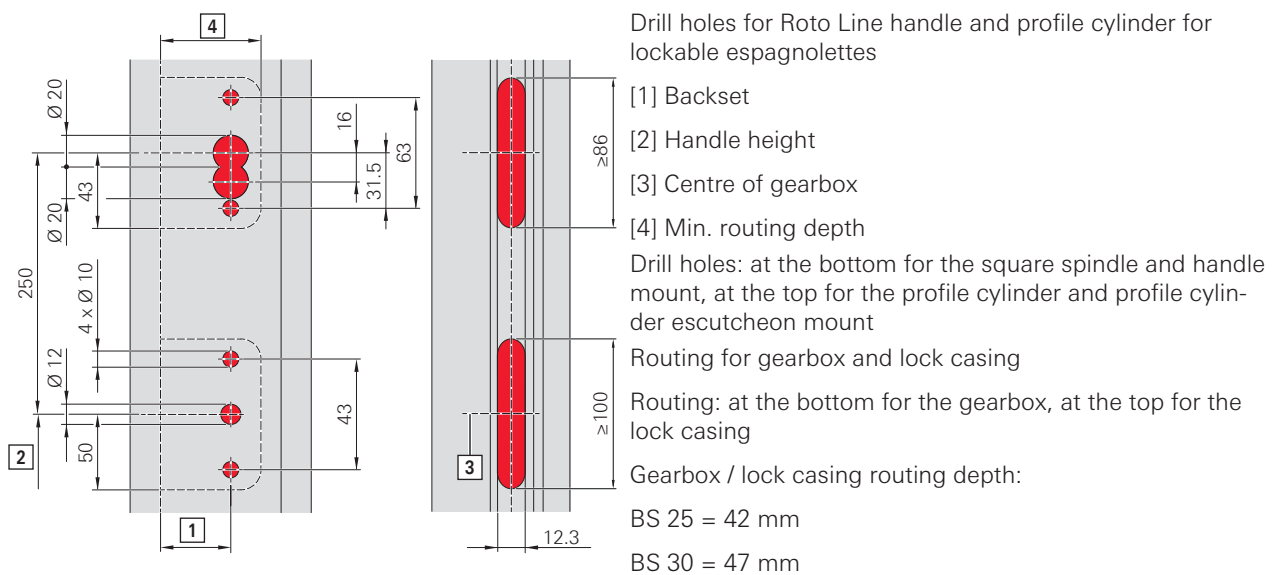
Installation

Drilling and routing dimensions

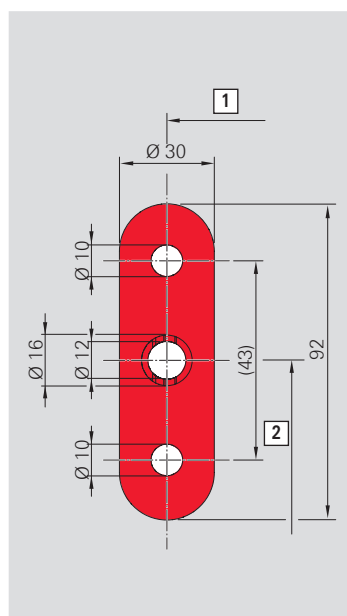
VT espagnolette, lockable



9.3.2 VT espagnolette, lockable

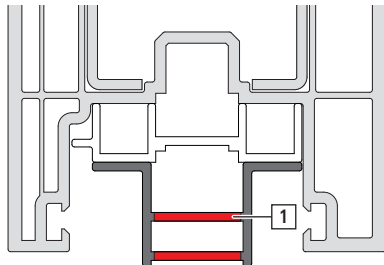
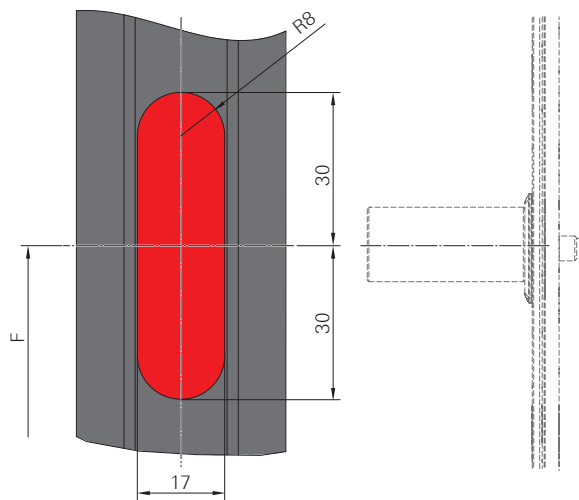


9.3.3 External recessed grip





9.3.4 Diagram C – cam operating sequence control

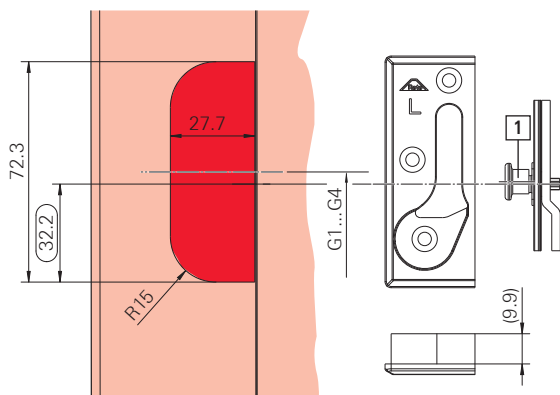


Routing for cam

Routing depth = through adapter profile [1]

F = Operating sequence control cam in open sliding position → 9.4.15 "Components in the floating mullion" from page 195

9.3.5 Striker, can be routed in



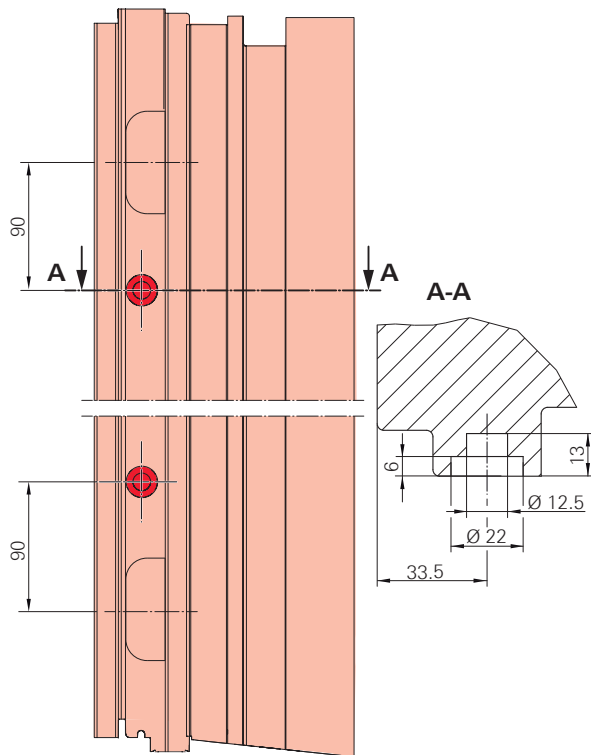
Routing for striker, can be routed in

Refer to the "Frame component positions" table for the quantity and position of the striker, which can be routed in → from page 213.

Routing depth = 10 mm

[1] Cam (VT espagnolette)

9.3.6 Rubber buffer



Create a stepped hole with a spade drill.

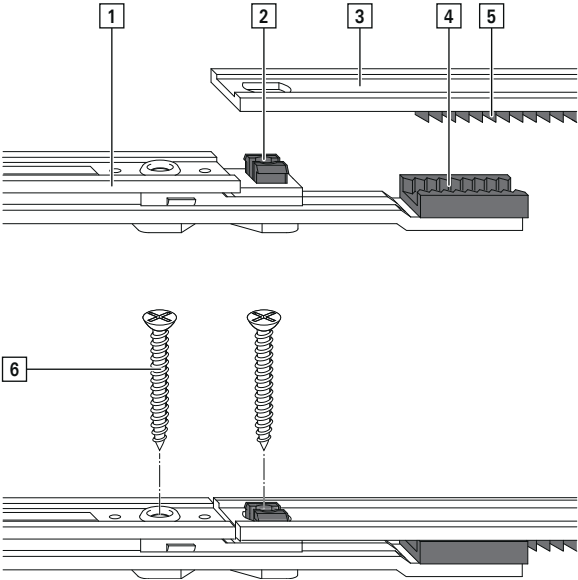
1. Drill to a depth of 6 mm with Ø 22 mm.
2. Drill to a depth of 13 mm with Ø 12.5 mm.



9.4 Sash

9.4.1 Force-fit connection

Couplable hardware components always require a force-fit connection.



Assignment	Description
[1]	Component A
[2]	Screw guide with clamp
[3]	Component B
[4]	Component A toothed segment
[5]	Component B toothed segment
[6]	Screw

Force-fit connections are formed by screwing down components A and B so that forces and movements are transferred without loss.



INFO

All couplable components are delivered attached in the centre.

9.4.2 Cropping the hardware components



ATTENTION

Incorrect cropping methods may result in property damage.

Do not insert the hardware components into the sash before they have been cropped. The screw guide engages and can be destroyed when it is removed.

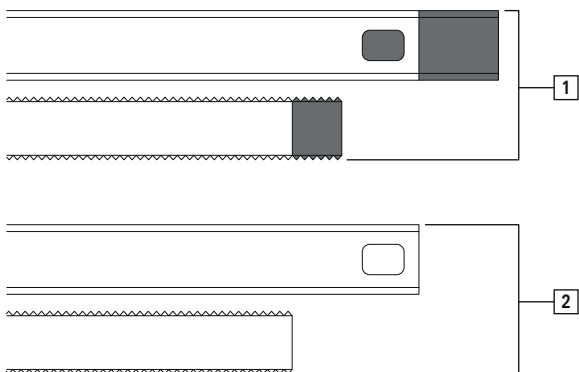
- Only lay out the hardware components and do not insert them into the sash before they have been cropped.

The following hardware components are cropped:

- Espagnolette
- Centre locks

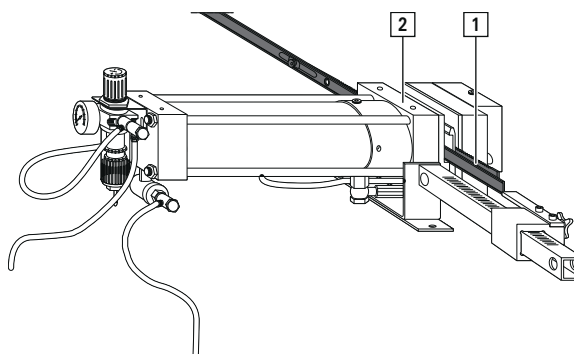
Cropping with a pneumatic punch (hole punching)

Hardware components are delivered 10 mm longer than the nominal dimension.



Assignment	Description
[1]	Hardware delivery state
[2]	Hardware, cropped

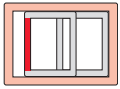
1. Place the hardware component in the required position.
2. Mark the length on the hardware component.
3. Insert the hardware component [1] into the pneumatic punch [2].



4. Align the hardware component.
5. Crop the hardware component.



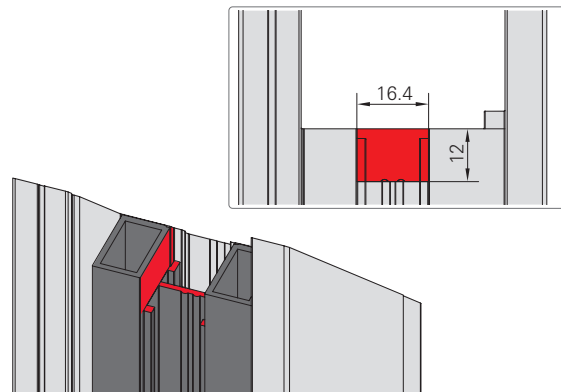
9.4.3 Sash adapter profile



Version 1: notching the adapter profile

⇒ The adapter profile has just been cropped (length = frame external height - 158).

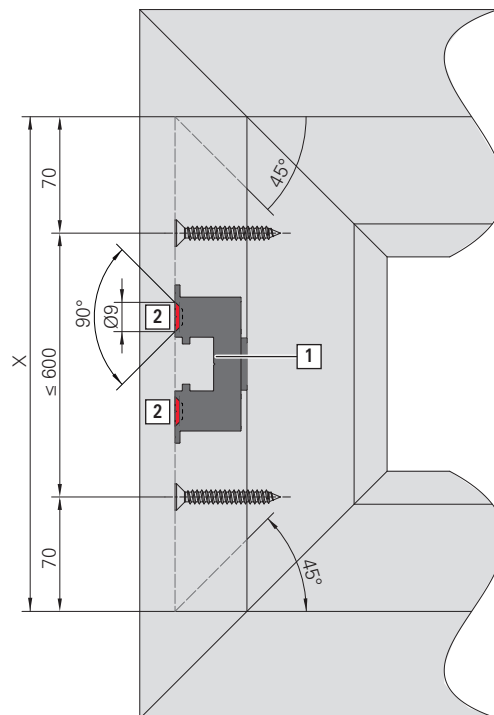
1. Notch the adapter profile (if present) at the top and bottom of the sash in the area of the corner drive.



Version 2: route the adapter profile

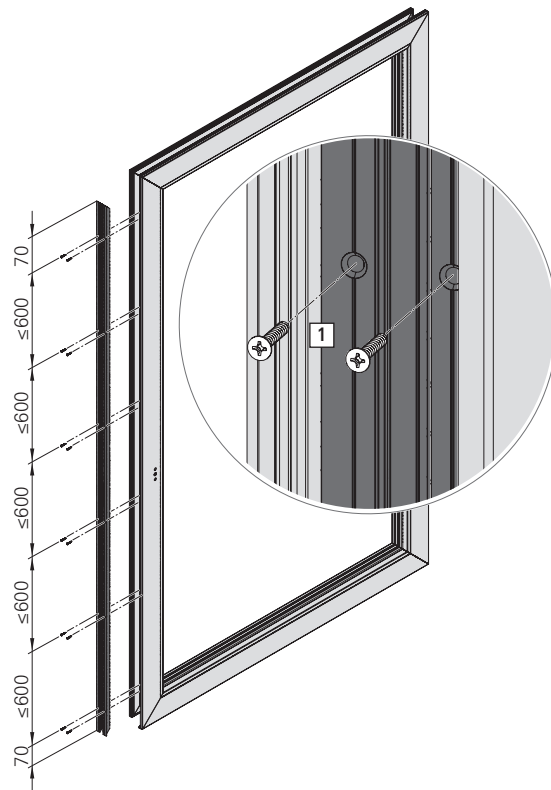
Only applicable to Salamander | evolutionDrive Plus+

1. Crop the adapter profile [1] at a 45° angle.
 $X = FEH - 158$
 Predrill and countersink the adapter profile on both outer notches [2].
 Drill: Ø 4.5



Installing the adapter profile

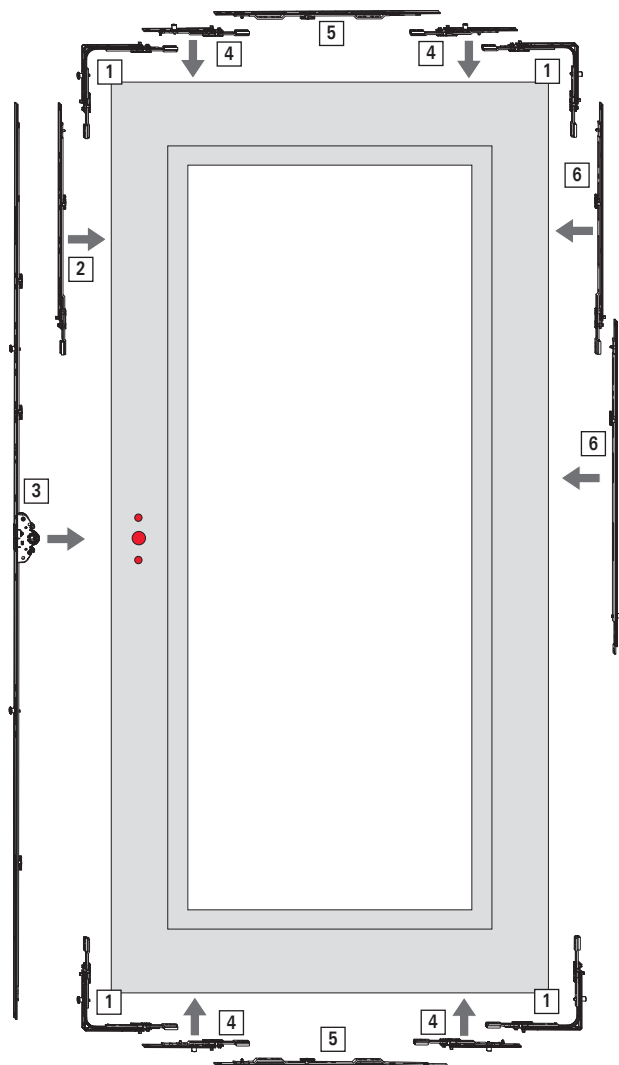
1. Place the adapter profile in the centre of the sash groove.
Align the adapter profile so that it is parallel with the sash groove.
Fasten the adapter profile in all predrilled holes using screws [1].





9.4.4 Installation sequence

9.4.4.1 Diagram A



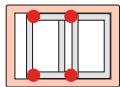
- [1] Corner drives
- [2] Centre lock, vertical on the locking side (size-dependent)
- [3] Espagnolette
- [4] Centre locks CL 130, horizontal at the top and bottom
- [5] Centre locks, horizontal at the top and bottom (size-dependent)
- [6] Centre locks, vertical on the mullion (size-dependent)



INFO

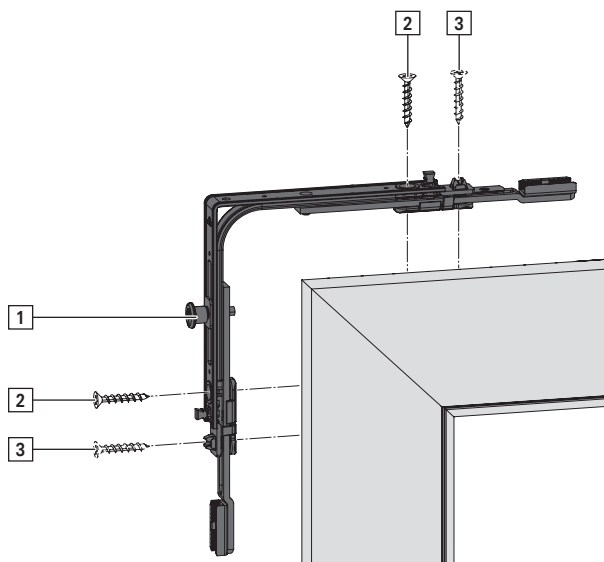
After installation, break the centre fixing on the espagnolette by turning the handle 180°. Turn the handle to the open sliding position.

9.4.5 Corner drive



Installing the corner drive

1. Insert the corner drive with vertical cam position [1] and secure with two screws [2].



2. After all of the connector components have been installed, screw down the corner drives with a further two screws [3]. → 9.4.1 "Force-fit connection" from page 175



INFO

Diagram C / C' – second opening sash: insert the corner drives (with E cam) horizontally on the locking side with cam position and secure with screws.

9.4.6 Centre locks

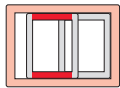
9.4.6.1 Centre lock, vertical

Installing the centre lock, vertical

1. Place the centre lock in the required position on the mullion and espagnolette side, mark the length on one side, remove it and crop it. → 9.4.2 "Cropping the hardware components" from page 176
2. Insert the centre lock with the cropped side facing downwards and create a force-fit connection. → 9.4.1 "Force-fit connection" from page 175



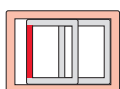
9.4.6.2 Centre lock, horizontal



Installing the centre lock, horizontal

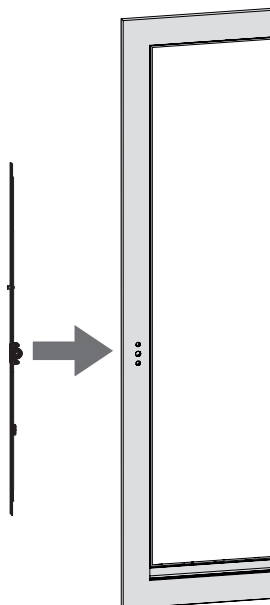
1. Place the centre lock at the bottom on the mullion side and at the top on the locking side, mark the length on one side, remove it and crop it → 9.4.2 "Cropping the hardware components" from page 176.
2. Insert the centre locks and create a force-fit connection → 9.4.1 "Force-fit connection" from page 175.

9.4.7 VT espagnolette



Installing the VT espagnolette

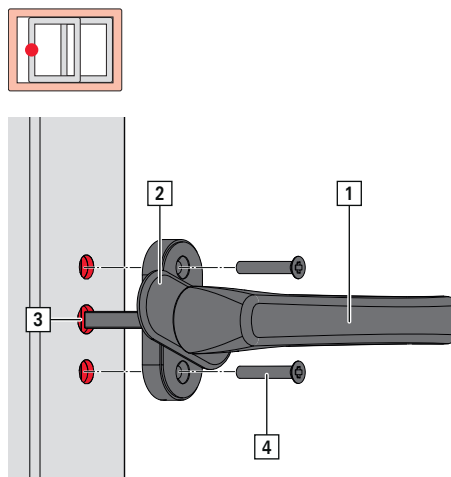
1. Place the espagnolette in the required position, mark the length on one side, remove and crop → 9.4.2 "Cropping the hardware components" from page 176.
2. Insert the espagnolette.
Create a force-fit connection → 9.4.1 "Force-fit connection" from page 175.



9.4.8 Handle and recessed grip

Installing the handle and recessed grip

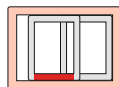
1. Move the handle [1] to the 90° position → 12.1.1 *"Roto Patio Inowa" from page 250.*
2. Turn the escutcheon cover [2] in order to expose the screw holes.



3. Insert the handle into the sash [3].
4. Insert the recessed grip into the sash on the opposite side.
5. Screw the recessed grip through the handle with two screws [4].
6. Turn the escutcheon cover in order to expose the screw holes.



9.4.9 Roller unit



INFO

The roller unit must not be pushed into the timber. Adapt the torque if necessary.
No spacer blocking for load transfer via the middle roller unit.

Positioning the drilling jig



ATTENTION

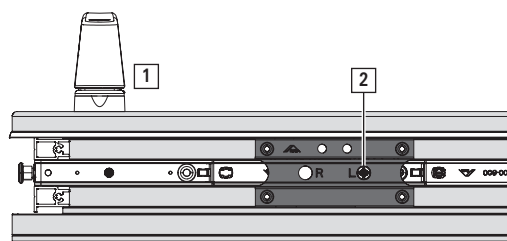
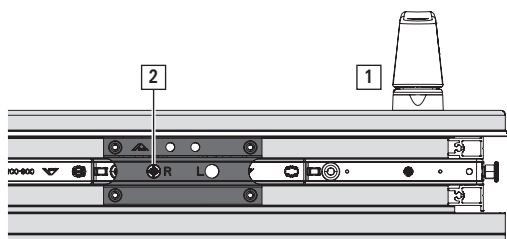
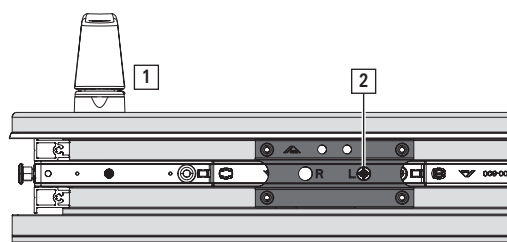
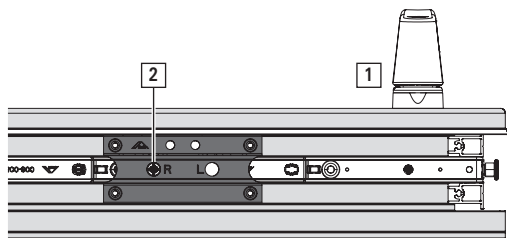
Improper drilling work may cause property damage.

An incorrect handle position and incorrect alignment of the drilling jig damage the sash during drilling.

- The handle must be in the sliding position [1].

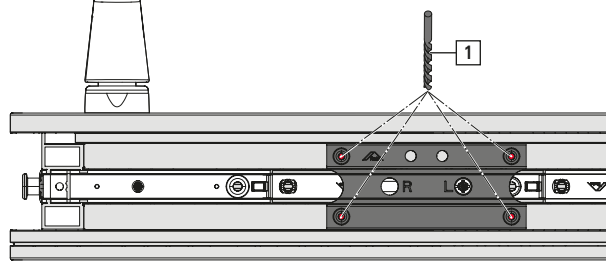
Attach the drilling jig to the cam [2].

Refer to the installation drawing for the position → *from page 243.*

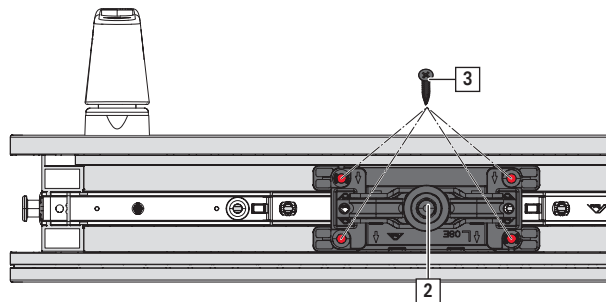


Installing the roller units

1. Drill the holes [1].
Drill: timber Ø 3.0; PVC Ø 3.5
Shown: diagram A, L version

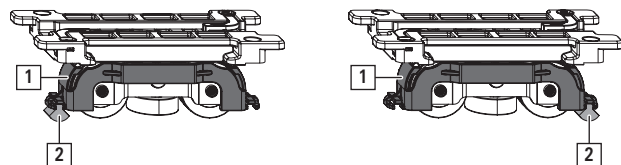


2. Insert the roller unit [2] and fasten with screws [3].



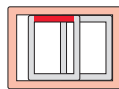
Fitting the brush holder

1. Attach the brush holder [1] on the roller unit, ensuring that the brushes [2] are positioned opposite one another and face outwards.





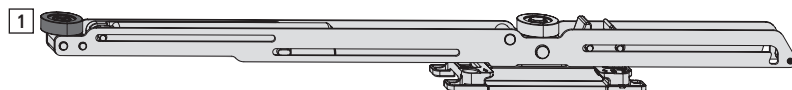
9.4.10 Control unit



INFO

The control unit must not be pushed into the timber. Adapt the torque if necessary.

For control units with Soft function, ensure that the additional control roller [1] is facing towards the centre of the sash during installation .



Positioning the drilling jig

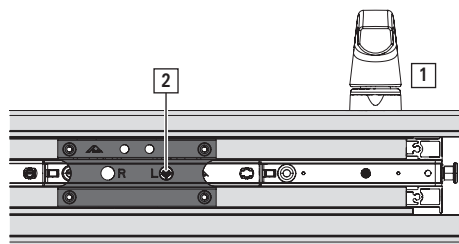
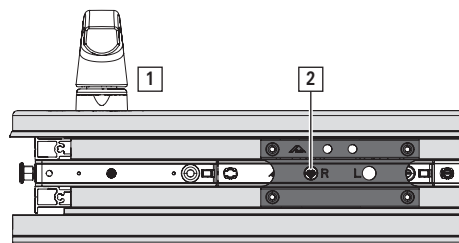
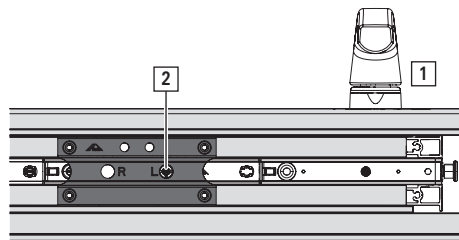
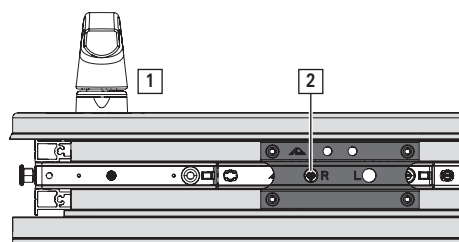


ATTENTION

Improper drilling work may cause property damage.

An incorrect handle position and incorrect alignment of the drilling jig damage the sash during drilling.

- The handle must be in the sliding position [1].

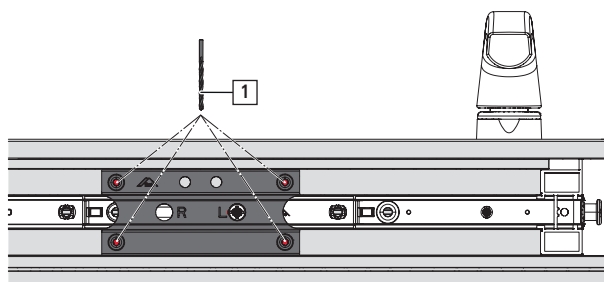


Installing the control unit

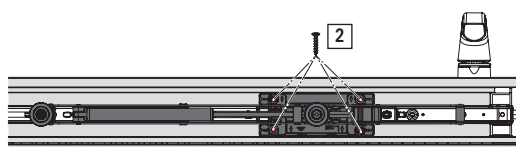
1. Drill the holes [1].

Drill: timber Ø 3.0; PVC Ø 3.5

Shown: diagram A, L version



2. Insert the control unit and fasten with screws [2].



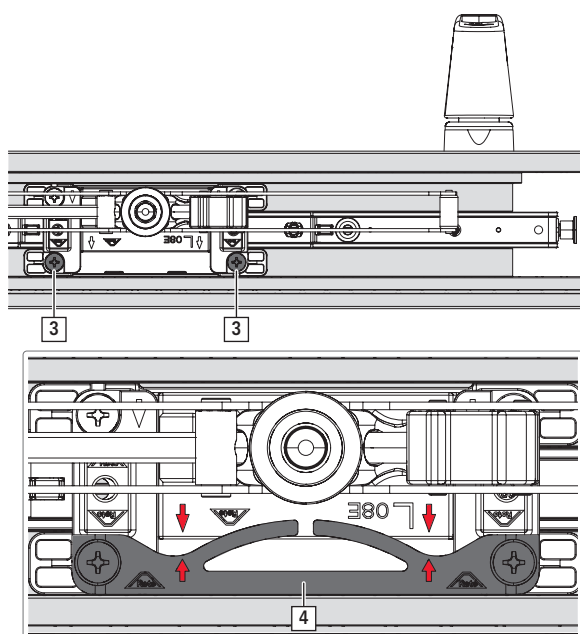
3. Optional:

Move the handle to the closed position.

Remove the two accessible screws [3].

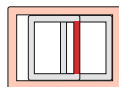
Use locating aids to position the centring unit [4] on the control unit. The arrows on the centring unit and on the control unit point towards each other.

Fasten to the control unit with two longer screws (min. 25 mm).





9.4.11 Centre closer



Figures: installation of the non-adjustable version.

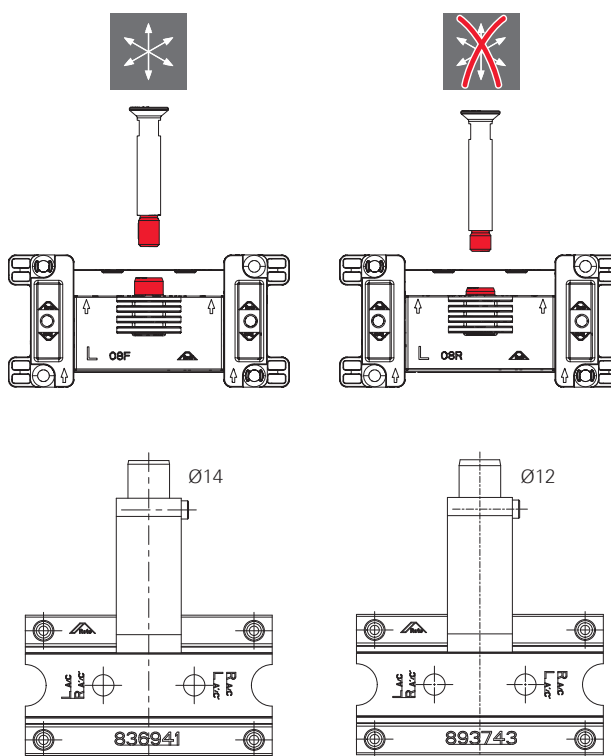


INFO

The centre closer must not be pushed into the timber. Adapt the torque if necessary.

Checking the combination of centre closer and mullion locking cam

1. Make sure that the components have been combined correctly:
 - Centre closer, adjustable with mullion locking cam, adjustable and Ø 14.0 drilling jig.
 - Centre closer with mullion locking cam and Ø 12.0 drilling jig.



Positioning the drilling jig



ATTENTION

Improper drilling work may cause property damage.

An incorrect handle position and incorrect alignment of the drilling jig damage the sash during drilling.

- ▶ The handle must be in the open sliding position [1].
- ▶ **Inward running sashes:** position the drilling jig so that the side with the Ø 12.0 / 14.0 drill hole [2] is facing **away** from the handle.
- ▶ **Outward running sashes:** position the drilling jig so that the side with the Ø 12.0 / 14.0 drill hole [2] is facing **to-wards** the handle.

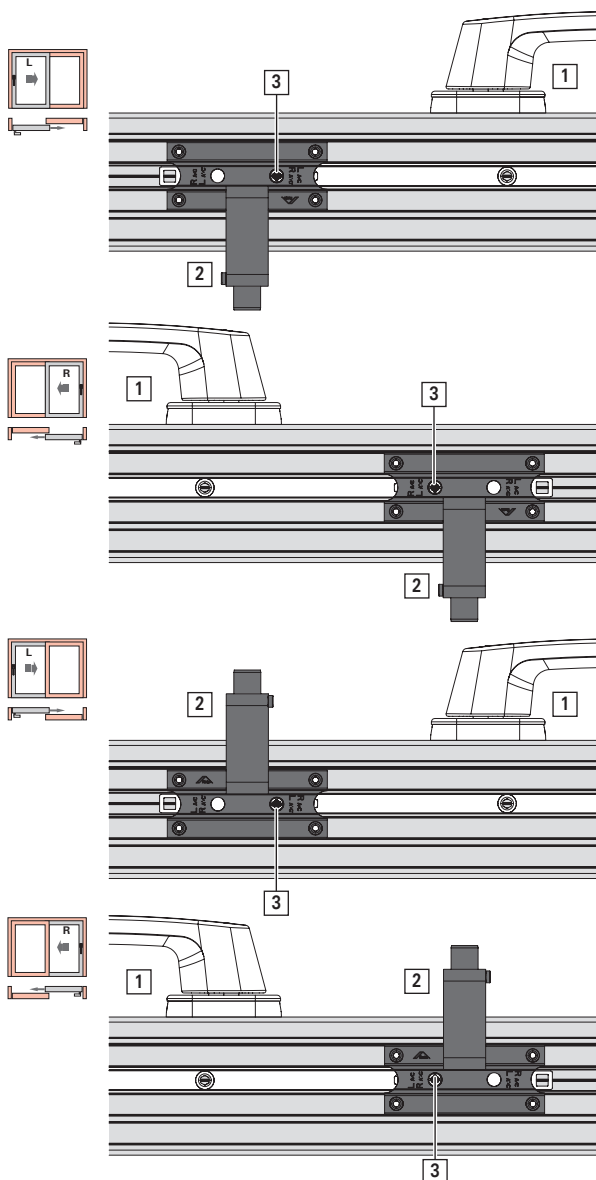
Attach the drilling jig to the control cam [3].

Refer to the installation drawing for the position → *from page 243*.



INFO

Drill the holes for the centre closers for anti-pushback function immediately for RC 2 and diagram C → *from page 190*.



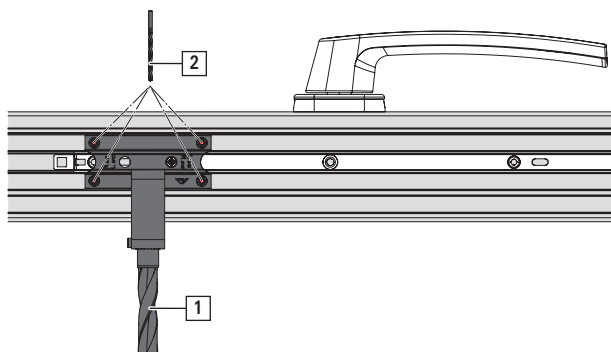
Installing the centre closer

1. Drill holes.

Drill [1]: Ø 12.0 / 14.0

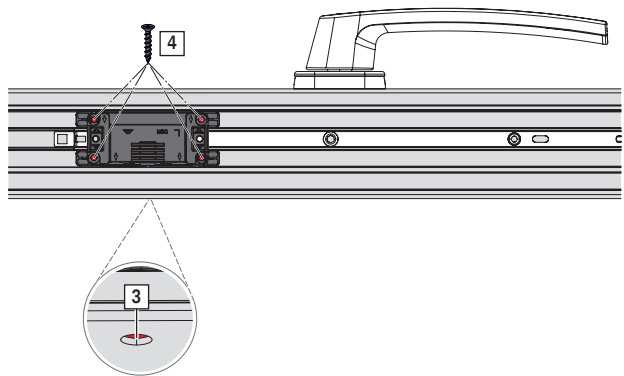
Drill [2]: timber Ø 3.0; PVC Ø 3.5

Shown: diagram A, L version

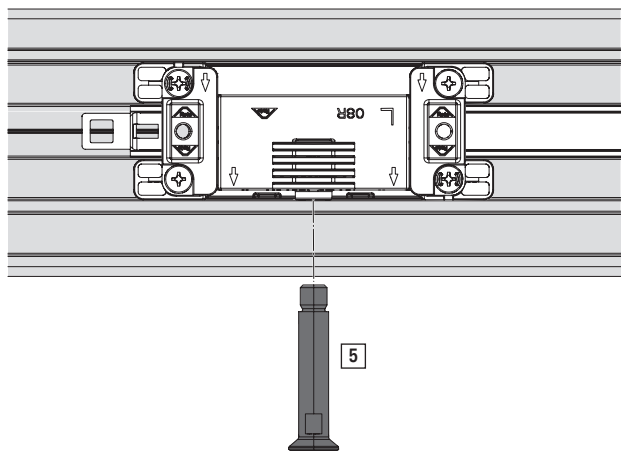




2. Insert the centre closer so that the mullion locking cam mount is facing the drill hole [3] on the outer side of the sash.
Fasten with four screws [4].



3. Insert the mullion locking cam [5] into the cam guide.

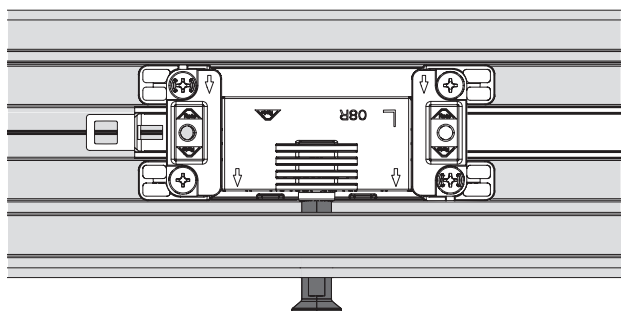


4. Screw down the mullion locking cam.
Tool: size 8 open-end spanner / size 4 hex key

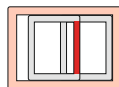


INFO

Tighten the mullion locking cam so that it is hand-tight.



9.4.12 Centre closer for anti-pushback function



INFO

Diagram A / C: install right components for L version; install left components for R version.

Diagram A' / C': install left components for L version; install right components for R version.

Drilling with a Ø 14.0 drilling jig is mandatory for the centre closer, adjustable.

The centre closer must not be pushed into the timber. Adapt the torque if necessary.

Figures: installation of the non-adjustable version.

Positioning the drilling jig

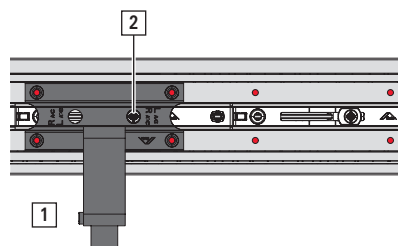
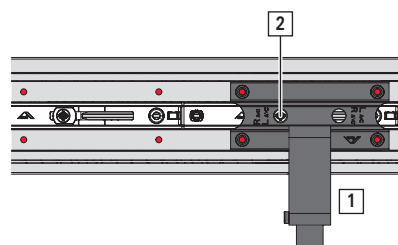
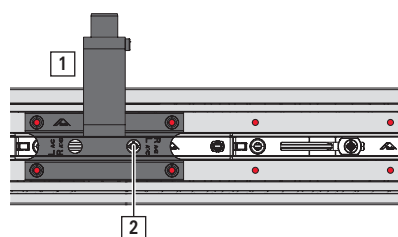
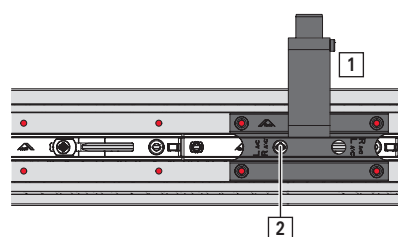


ATTENTION

Improper drilling work may cause property damage.

An incorrect handle position and incorrect alignment of the drilling jig damage the sash during drilling.

- ▶ The handle must be in the open sliding position.
- ▶ **Inward running sashes:** position the drilling jig so that the side with the Ø 12.0 / 14.0 drill hole [1] is facing **away** from the handle.
- ▶ **Outward running sashes:** position the drilling jig so that the side with the Ø 12.0 / 14.0 drill hole [1] is facing **to-wards** the handle.



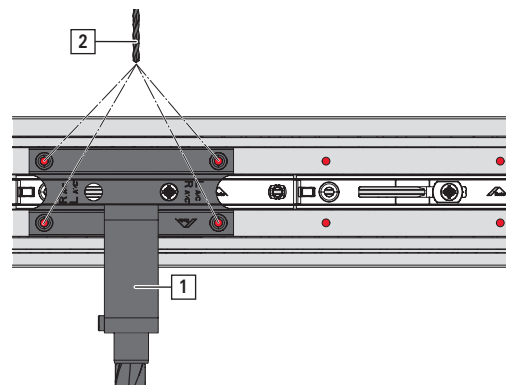
Attach the drilling jig to the control cam [2].

Refer to the RC installation drawing or diagram C for the position → *from page 243*.

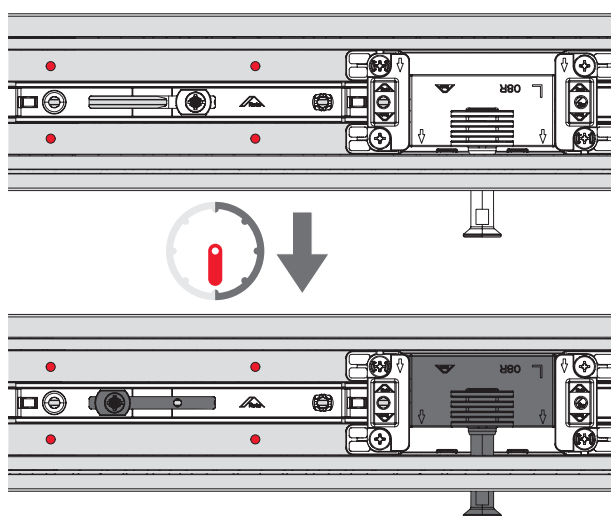


Installing the centre closer for anti-pushback function

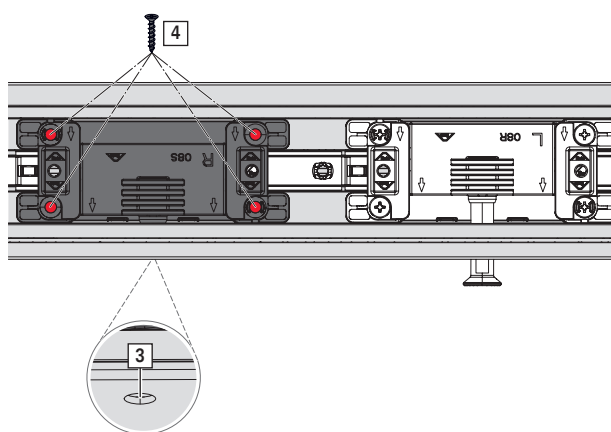
1. Drill holes.
 Drill [1]: Ø 12.0 / 14.0
 Drill [2]: timber Ø 3.0; PVC Ø 3.5
 Shown: diagram A, L version



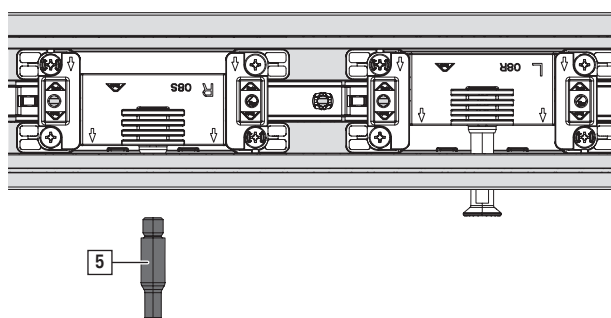
2. Install the centre closer → *from page 187*.
 Move the handle to the closed position.



3. Insert the centre closer so that the mullion locking cam mount is facing the drill hole [3] on the outer side of the sash.
 Fasten with four screws [4].



4. Insert the pin for anti-pushback function [5] into the cam guide.



Installation

Sash

Centre closer for anti-pushback function

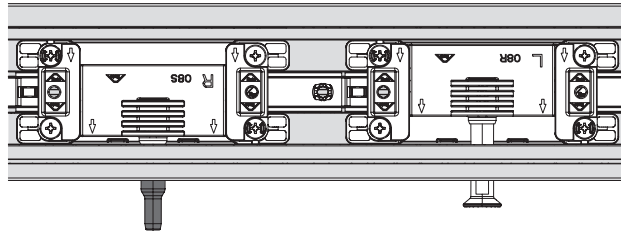
5. Fasten the pin for anti-pushback function.

Tool: size 3 hex key



INFO

Tighten the pin for anti-pushback function so that it is hand-tight.





9.4.13 Rubber buffer

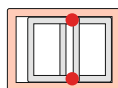


INFO

Timber: install the rubber buffer in the frame → 9.6.14 "Rubber buffer" from page 241.

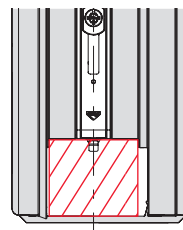
Installing the rubber buffer

1. Install the profile-related cover on the mullion side. Ensure that the operator track and roller track are running smoothly.



INFO

Place pressure-proof packers underneath the cover at the top and bottom in the hatched area for installing the rubber buffer. Ensure that the cam on the corner drive is running smoothly.

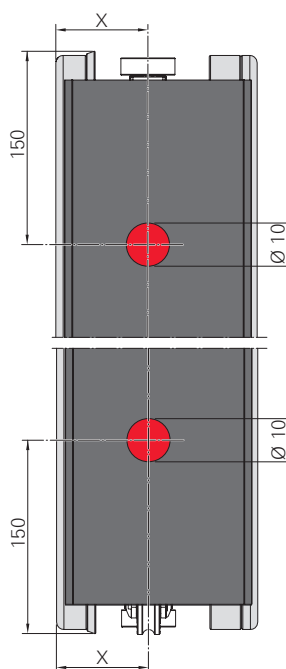


2. Drill two Ø 10 mm holes for rubber buffers at the top and bottom of the cover.

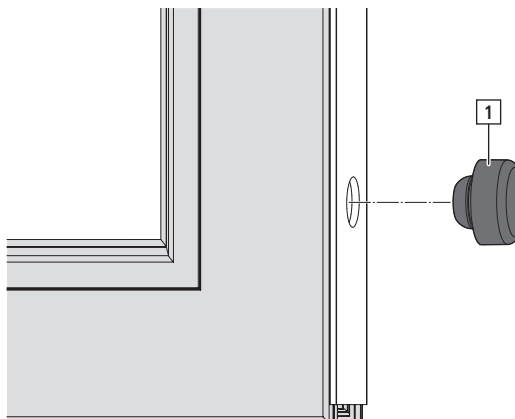


INFO

The dimension X for the drill hole position is profile-related.



3. Insert the rubber buffer [1].

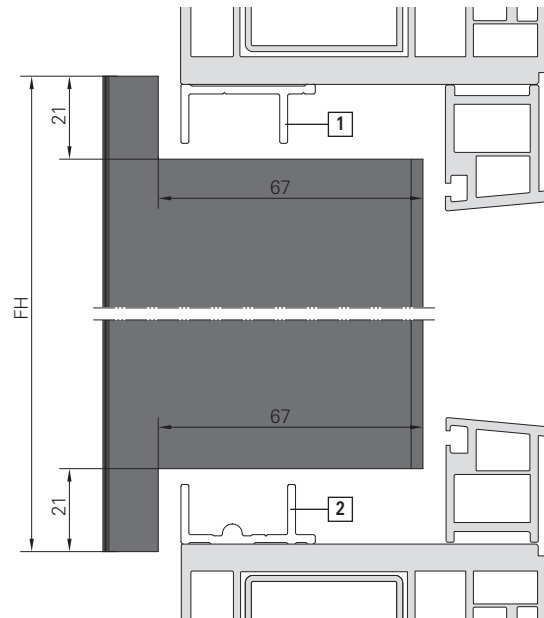


9.4.14 Cover profile

The cover profile is customer-specific and must be notched at the top and bottom prior to installation.

Notching the cover profile

1. Crop the cover profile to the sash height (SH).
Notch the cover profile at the top in the operator track [1] area and at the bottom in the roller track [2] area.





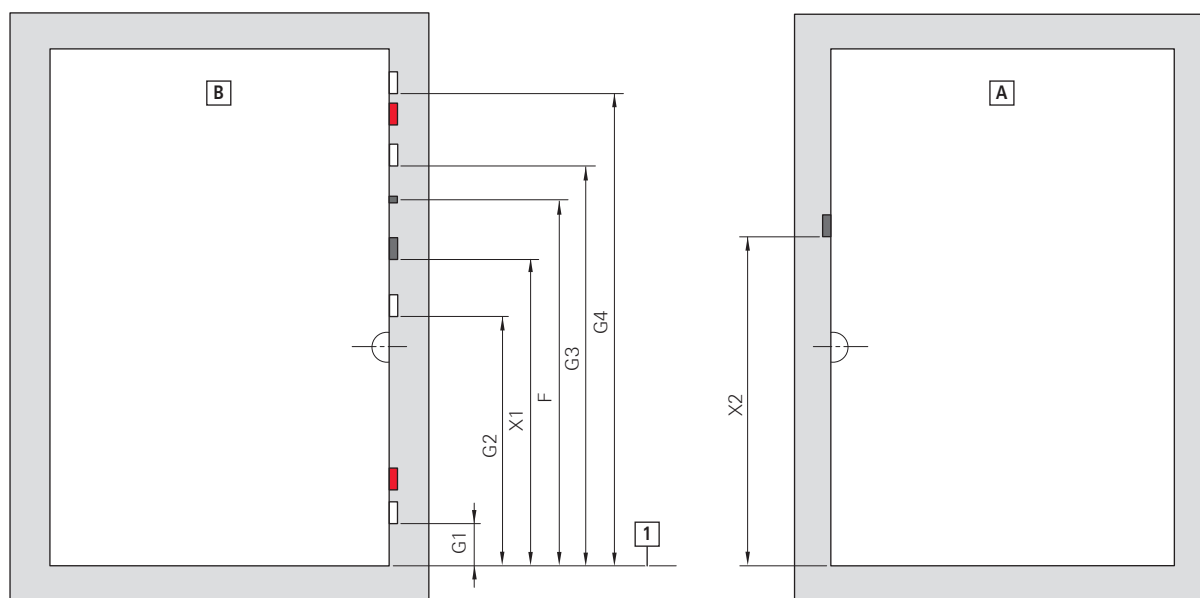
9.4.15 Components in the floating mullion



INFO

The installation of the operating sequence control is only shown as an example. For profile-related installation, see the profile assessment.

Timber



[1] Sash rebate edge; [A] First opening sash; [B] Second opening sash

□ Striker, diagram C

■ Operating sequence control: [F] Bolt, [X1] Anti-lifting device, [X2] Stop, routed

■ Buffer

First opening sash

SRH [mm]	X2
≤ 1000	–
1001 – 1200	733
1201 – 1600	820
1601 – 1800	1206
1801 – 2400	1552
> 2400	1596

Second opening sash

SRW [mm]	G1	G2	G3	G4	F	X1
≤ 1000	51	SRH – 59	–	–	–	–
1001 – 1200	51	675	SRH – 59	–	766	688
1201 – 1600	51	675	SRH – 59	–	853	775
1601 – 1800	51	675	SRH – 59	–	1239	1162
1801 – 2400	51	675	1345	SRH – 59	1585	1507
> 2400	51	675	1745	SRH – 59	1629	1551

Installing the operating sequence control

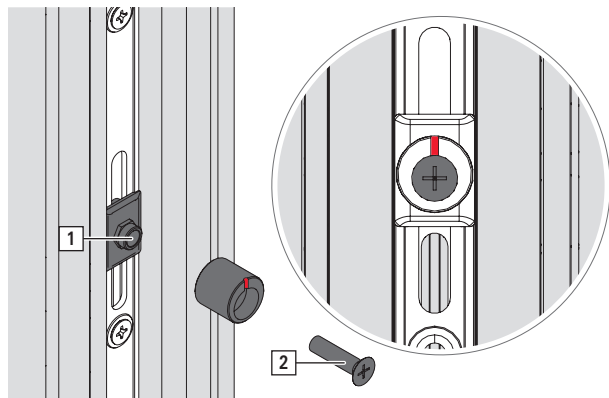
1. Move the handle of the second opening sash to the closed sliding position.

Installation

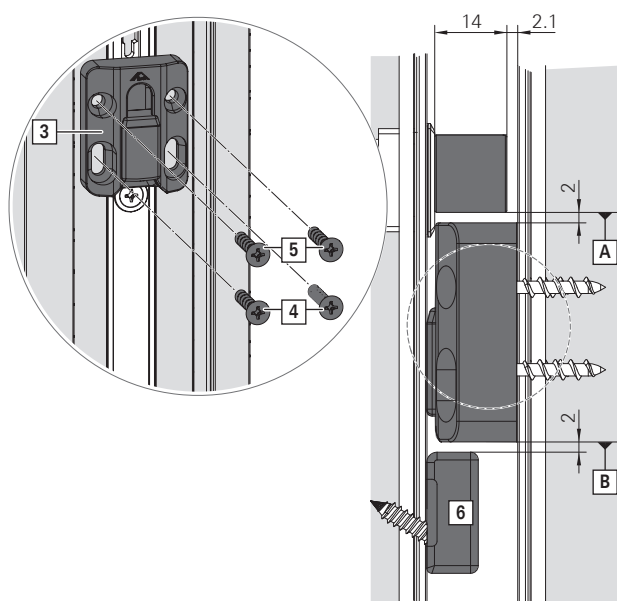
Sash

Components in the floating mullion

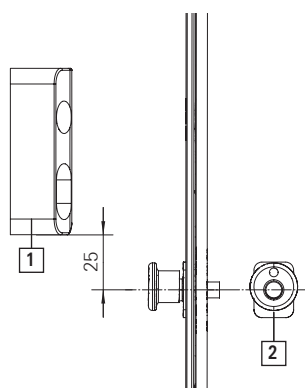
2. Attach the bolt at the position provided [1] on the espagnolette of the second opening sash. The marking (red) points up.
Fasten with one screw [2].



3. Push the first opening sash shut until the lower edge [A] of the bolt can be transferred to the first opening sash.
Open the first opening sash again and pre-position the stop [3] on the first opening sash with two screws [4] in slots, at an offset of 2 mm from the lower edge of the bolt.
Check the position and fasten with an additional two screws [5].
Push the first opening sash shut until the lower edge [B] of the stop can be transferred to the second opening sash.
Open the first opening sash again and fasten the anti-lifting device [6] to the second opening sash with two screws, at an offset of 2 mm from the stop.



Striker, diagram C, dimensional drawing in open sliding position

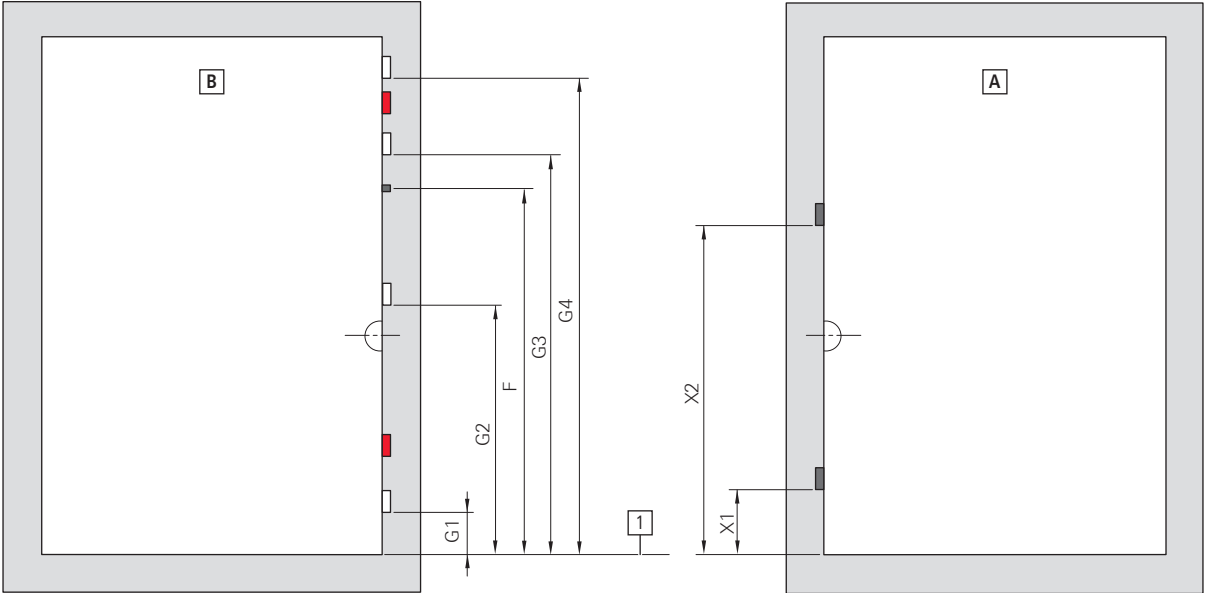


[1] Striker, diagram C

[2] Locking cam



PVC



- [1] Sash rebate edge; [A] First opening sash; [B] Second opening sash
- Striker, screw-on: to prevent incorrect operation G1 [1], standard G2 [2]
- Operating sequence control: striker with buffer [X2], screw for cam / adapter / trapezoid [F], anti-lifting device [X1]
- Buffer

First opening sash

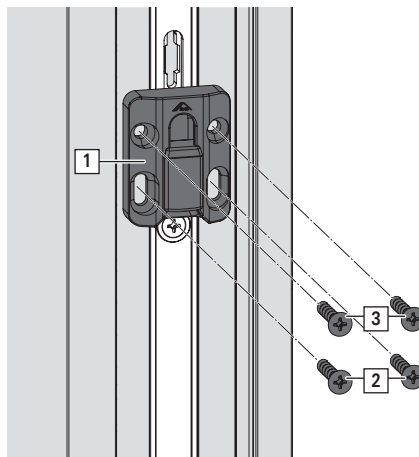
SRH [mm]	X1	X2
≤ 1000	–	–
1001 – 1200	89	733
1201 – 1600	89	820
1601 – 1800	89	1206
1801 – 2400	89	1552
> 2400	89	1596

Second opening sash

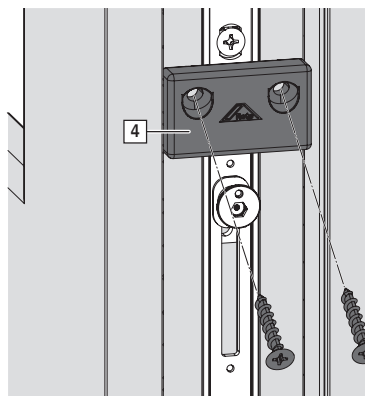
SRH [mm]	G1[1]	G1[2]	G2	G3	G4	F
≤ 1000	51	62	SRH – 48	–	–	–
1001 – 1200	51	62	686	SRH – 48	–	766
1201 – 1600	51	62	686	SRH – 48	–	853
1601 – 1800	51	62	686	SRH – 48	–	1239
1801 – 2400	51	62	686	1356	SRH – 48	1585
> 2400	51	62	686	1756	SRH – 48	1629

Installing the operating sequence control**First opening sash**

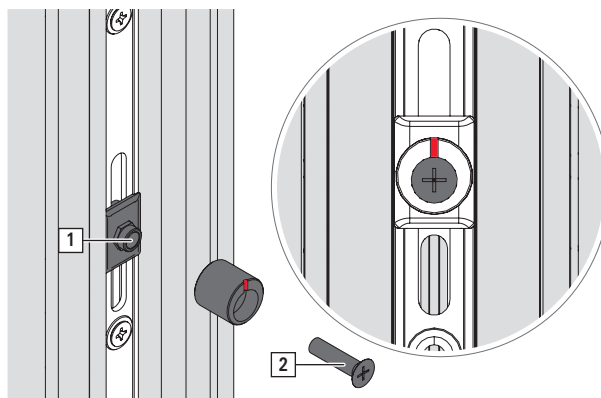
1. Pre-position the striker with buffer [1] in the slots with two screws [2].
Check the position and fasten with an additional two screws [3].



2. Position the anti-lifting device [4] and fasten with two screws.

**Second opening sash**

1. Position the strikers and fasten with two screws → *9.6.3 "Striker, screw-on" from page 217.*
2. Version 1:
Attach the bolt at the position provided on the espagnolette [1] so that the marking (red) points up.
Fasten with one screw [2].

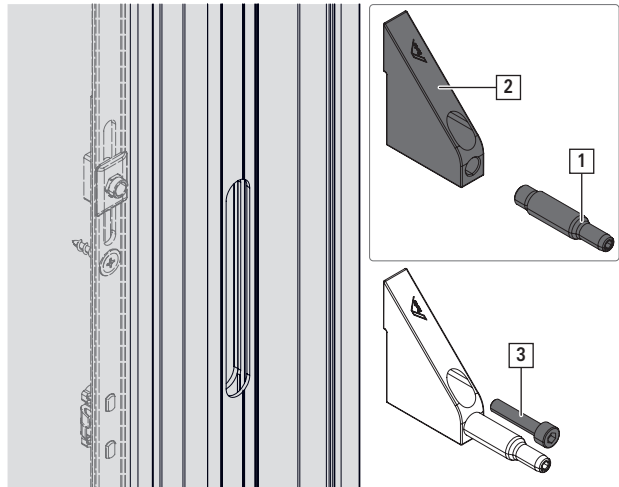




Version 2:

Screw the pin for anti-pushback function [1] into the trapezoid [2] as far as it will go. Attach it at the position provided on the espagnolette .

Fasten with one screw [3].



9.5 Frame

9.5.1 Roller track



INFO

Pay attention to the profile assessment.

- Adapt the width of the roller track under your own responsibility.
- Seal the roller track properly under your own responsibility. Prevent water from entering underneath the roller track.
- Fit a water drain under your own responsibility so that water is drained away to the outside in a controlled manner.
- Ensure that the roller track is securely attached.
- Protect the roller track against contamination and additional surface treatment.

Version with continuous roller track

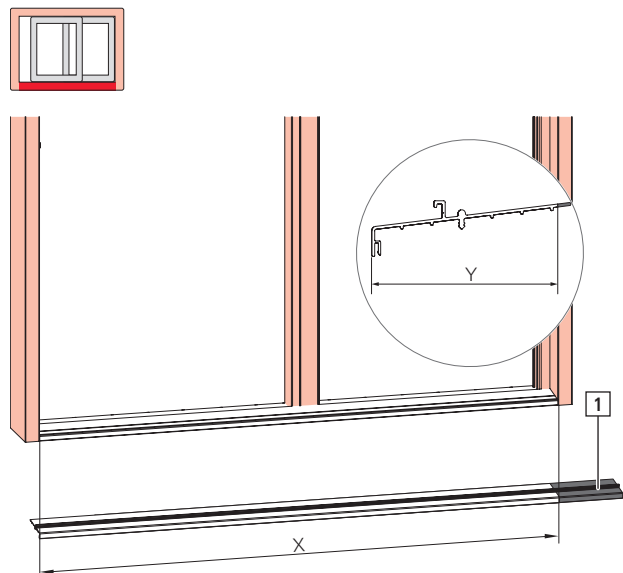
Diagram A' is shown here.

Timber

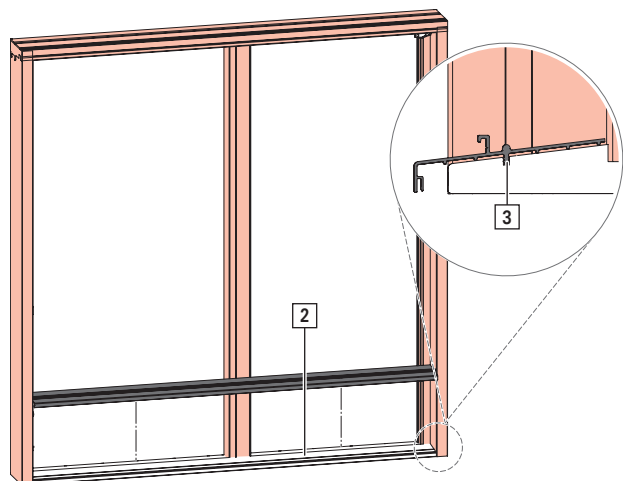
1. Cut the roller track [1] to size.

$X = \text{FIW} - 2$

$Y = \text{profile width}$



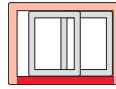
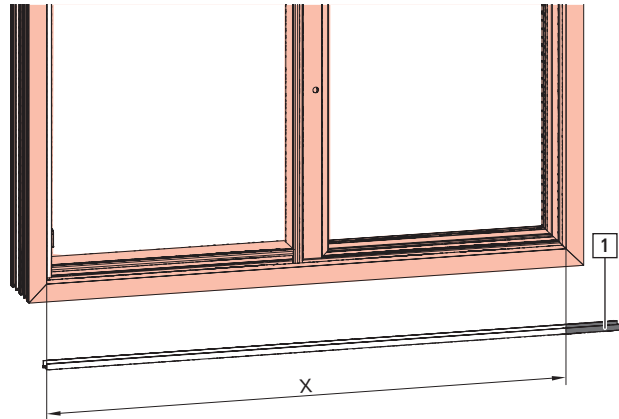
2. Place the roller track on the threshold [2] and press down firmly into the threshold groove [3].



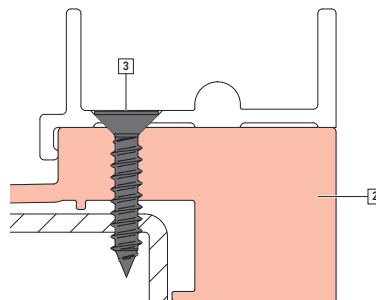


Salamander | evolutionDrive Plus+

1. Cut the roller track [1] to size.
 $X = \text{FEW} - 78$



2. Place the roller track on the threshold [2].
Predrill the roller track with frame profile in the area of the steel reinforcement (at a distance of max. 300 mm).
Fasten the roller track in all predrilled holes using screws [3].



Version with split roller track

Diagram C' is shown here.

Timber

1. Cut the roller tracks [1] to size.



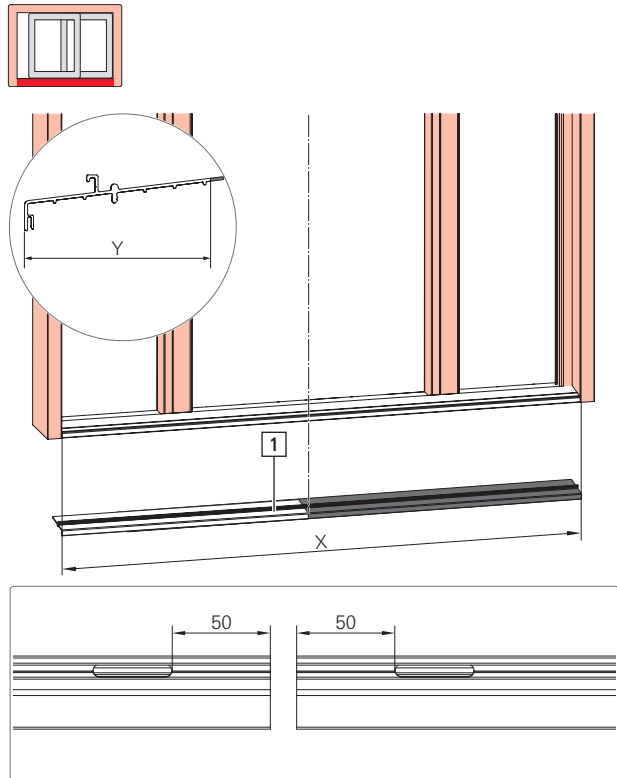
INFO

Ensure that the drainage holes are located at least 50 mm away from the edge.

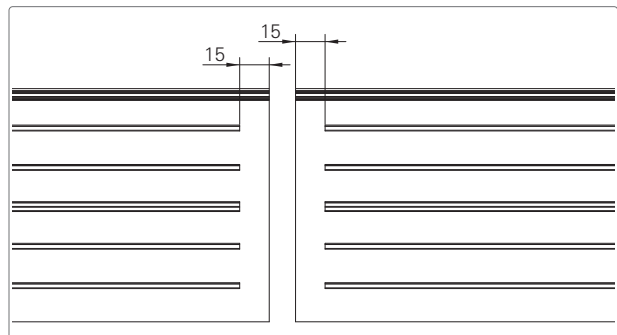
Cut both roller tracks to the same length.

$$X = \text{FIW} - 2$$

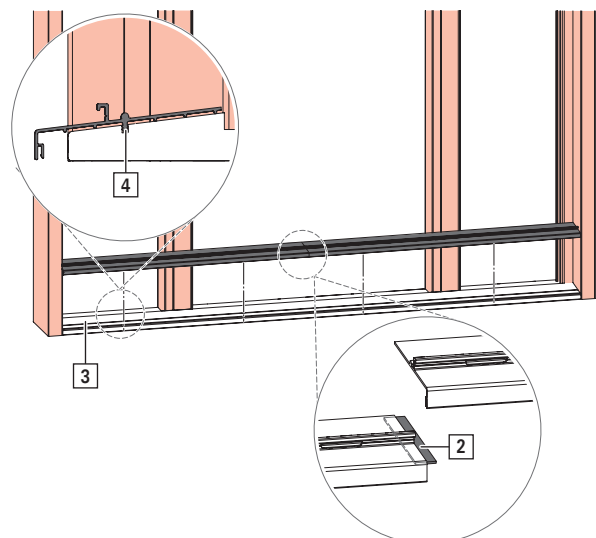
$$Y = \text{profile width}$$



2. Remove the roller track grooves in the joint area.



3. Attach a sealing strip [2] as a connection element between the two roller tracks.
 Place the roller tracks on the threshold [3] and press down firmly into the threshold groove [4].





9.5.2 Operator track



ATTENTION

Protruding screw heads may cause property damage.

Protruding screw heads in the area of the activator can damage the control unit when opening the sash.

1. Do not screw the operator track in the area of the activator.



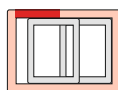
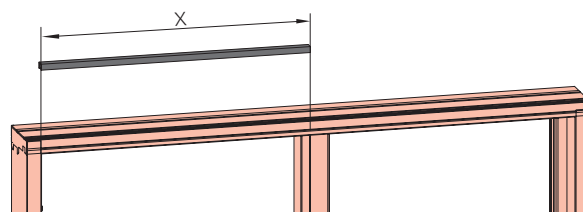
INFO

- Pay attention to the system-specific profile assessment.
 - Seal the guide track properly under your own responsibility. Prevent water from entering underneath the guide track.
 - Ensure that the guide track is securely attached.
- Adhere to a screw spacing of max. 300 mm.

Preparing the operator track – version with split operator track

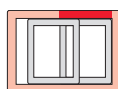
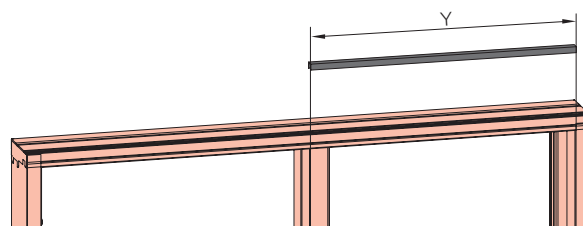
1. Cut the operator track for the access area to size and predrill it.

$$X = (FIW - 2) / 2$$



2. Cut the operator track for the fixed glazing area to size and predrill it.

$$Y = FIW - X$$

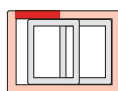
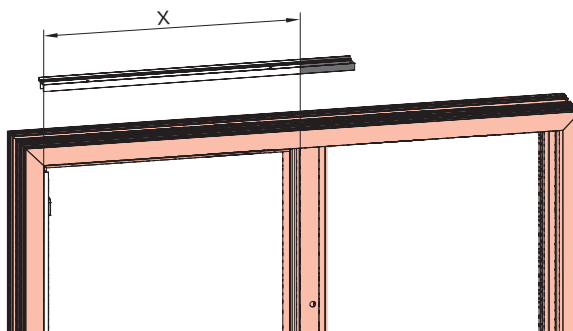


Preparing the operator track – version with split operator track

Only applicable to Salamander | evolutionDrive Plus+

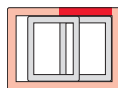
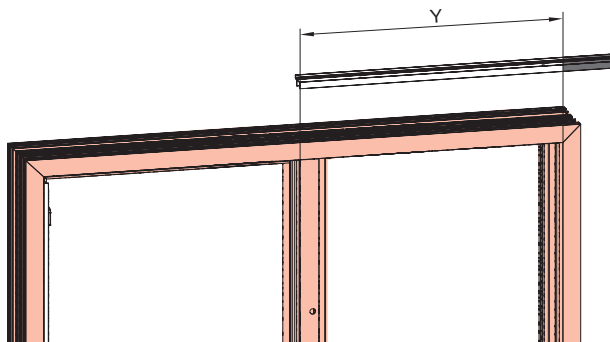
1. Cut the operator track for the access area to size and predrill it.

$$X = (FEW / 2) - 94$$



2. Cut the operator track for the fixed glazing area to size and predrill it.

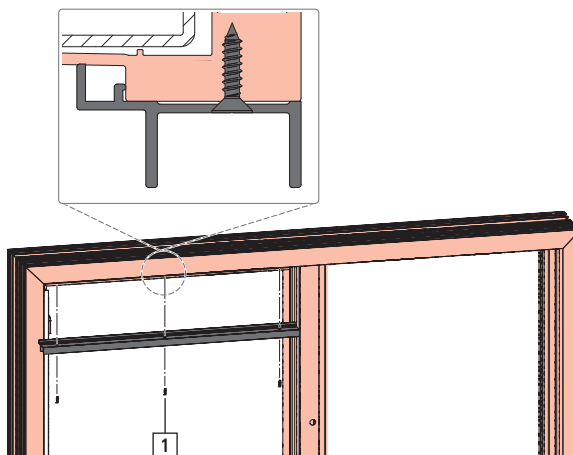
$$Y = (FEW / 2) + 16$$



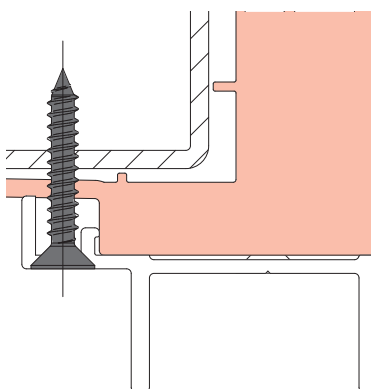
Installing the operator track in the access area – version with split operator track

Only applicable to Salamander | evolutionDrive Plus+

1. Insert the operator track into the frame in the access area and fasten with screws [1] (screws spaced max. 300 mm apart).



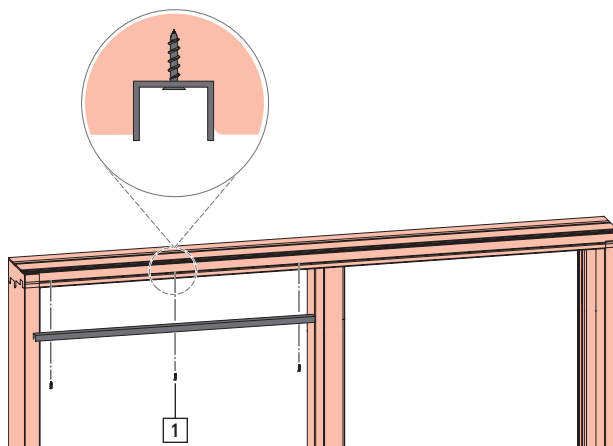
2. **RC 2 / RC 2 N** (only applicable to Salamander | evolutionDrive Plus+)
 Predrill the frame profile in the area of the steel reinforcement (at a distance of max. 300 mm).
 Fasten the operator track with additional screws.





Installing the operator track in the access area – version with split operator track

1. Insert the operator track into the frame in the access area and fasten with screws [1] (screws spaced max. 300 mm apart).

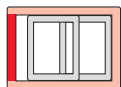


INFO

Only install the operator track in the fixed glazing area once the sash has been inserted.

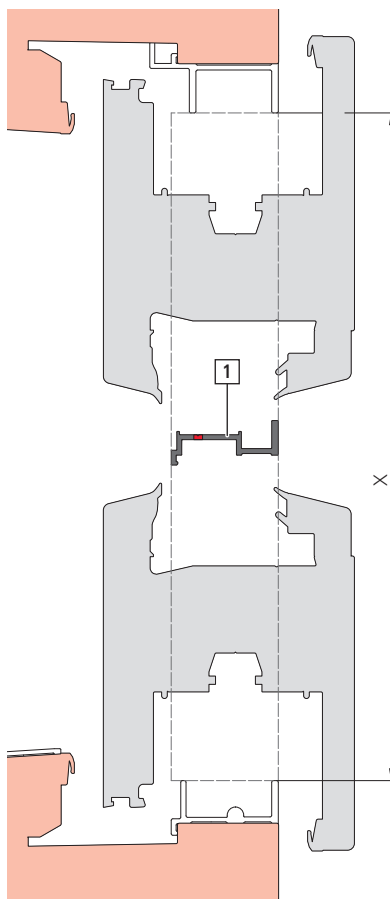
9.5.3 Frame adapter profile

Only applicable to Salamander | evolutionDrive Plus+



Preparing the adapter profile

1. Crop the adapter profile [1].
X = FEH - 106

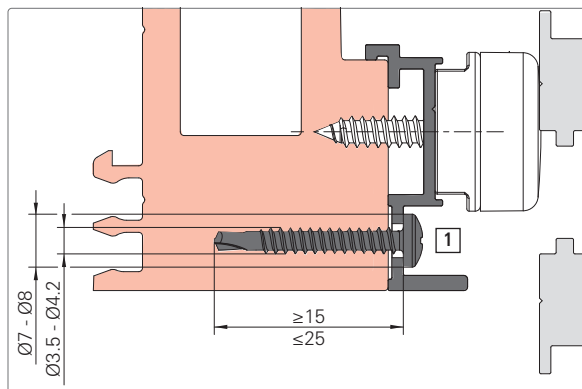
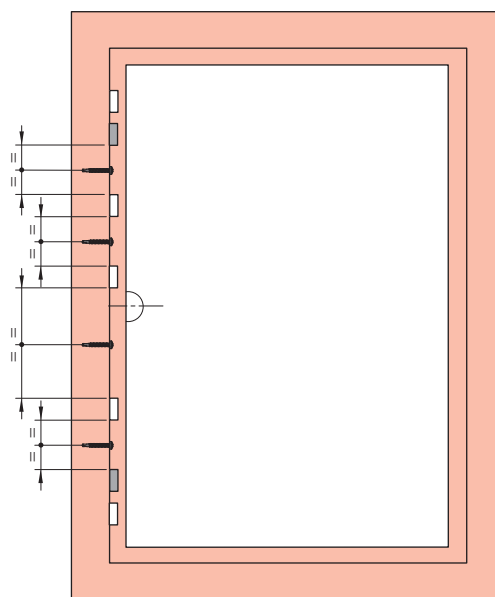


Installing the adapter profile

1. Fasten the adapter profile, together with strikers and buffer, to the frame on the locking side.



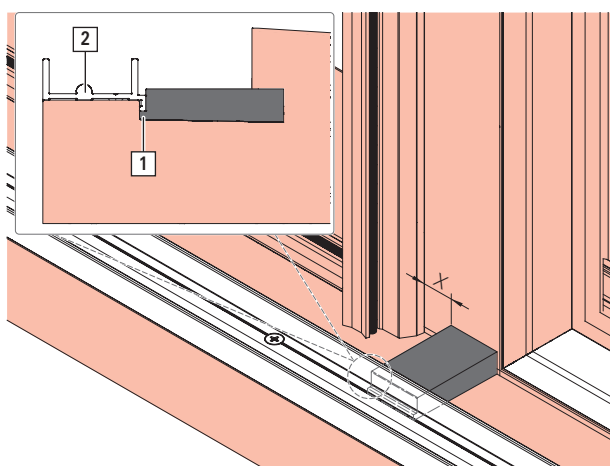
- Only applicable to Salamander | evolutionDrive Plus+: Also fasten the adapter profile in the centre between two strikers or between the buffer and striker using one flat-headed screw [1] each with drill point in the groove provided.



9.5.4 Gasket pad

Only applicable to Salamander | evolutionDrive Plus+

- Apply adhesive to the entire underside of the gasket pad.
Push the gasket pad [1] under the roller track [2] in the fixed glazing area, at a distance [X] from the floating mullion, and adhere it to the threshold.
X = 15



9.6 Joining the sash and frame



CAUTION

Heavy loads pose a risk of injury.

Lifting and carrying heavy loads in an uncontrolled manner may lead to physical injury.

- ▶ Transport and installation must be carried out by at least two people.
 - ▶ Use transportation means. → *15 "Transport" from page 258*
 - ▶ Note the applicable accident prevention regulations.
-



ATTENTION

Heavy loads may cause property damage.

Lifting and carrying heavy loads in an uncontrolled manner may lead to property damage.

- ▶ Transport and installation must be carried out by at least two people.
 - ▶ Use transportation means. → *15 "Transport" from page 258*
 - ▶ Do not rest sashes on the rollers.
-



9.6.1 Inserting the sash



WARNING

An unsecured sash may pose a risk of death!

The sash may fall during installation if it is not securely connected to the frame.

- Secure the sash to prevent it from falling, e.g. by using two people.



INFO

- Pay attention to the system-specific profile assessment.
- Seal the guide track properly under your own responsibility. Prevent water from entering underneath the guide track.
- Ensure that the guide track is securely attached.
Adhere to a screw spacing of max. 300 mm.

Version with split operator track, inserting the sash at the bottom

The operator track is installed in the access area.

The operator track for the fixed glazing area is prepared.

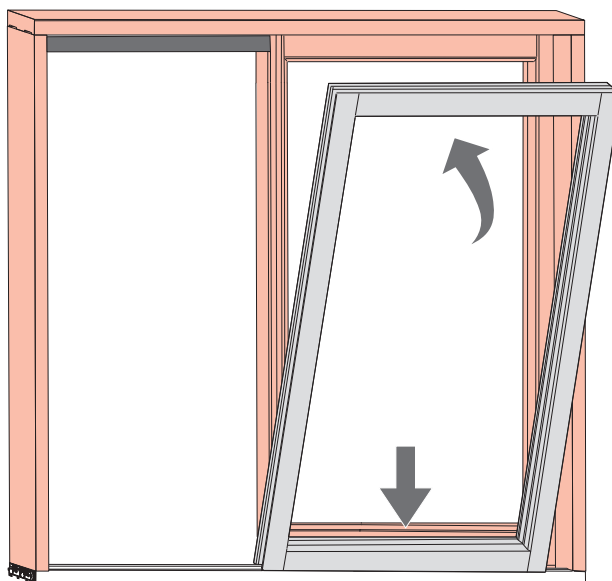
1. Move the handle to the sliding position.



2. In front of the fixed glazing area, guide the sash into the bottom of the frame and position the roller unit on the roller track without impact.

For roller tracks with just one wall, ensure that the roller unit rollers are not set down next to the roller track.

Check that the roller unit rollers are correctly positioned on the roller track by pushing the sash.

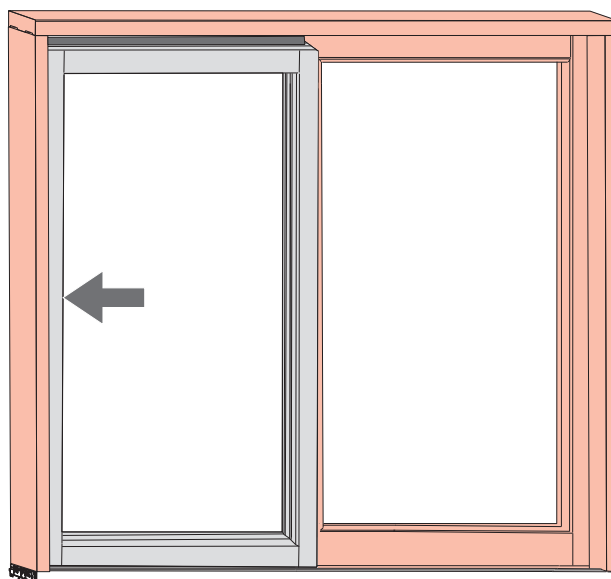


Installation

Joining the sash and frame

Inserting the sash

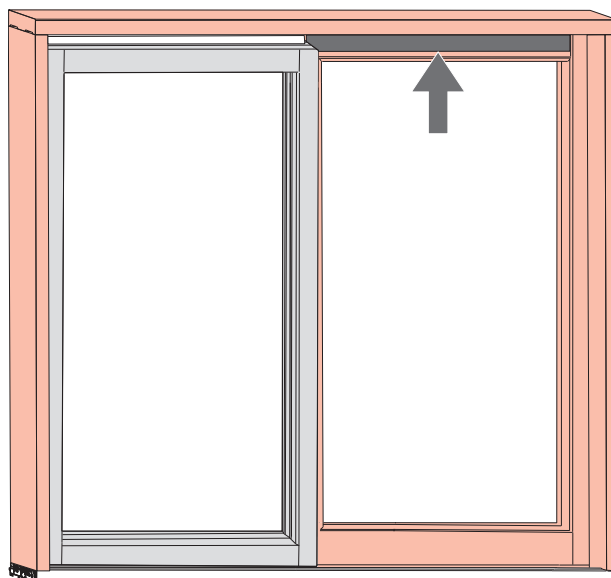
3. Push the sash onto the roller track in front of the access area in a controlled manner until all control units are located in the operator track that is already installed.



4. Move the handle to the closed position.

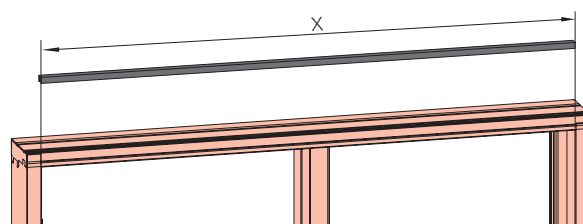


5. Insert the prepared operator track into the frame in the fixed glazing area and fasten with screws (screws spaced max. 300 mm apart).



Version with continuous operator track, inserting the sash at the bottom

1. Cut the operator track to size.



2. Move the handle to the sliding position.





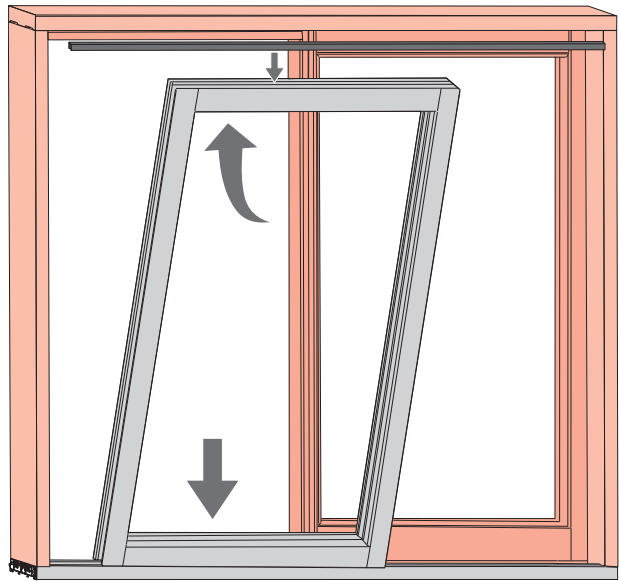
3. In front of the access area, guide the sash into the bottom of the frame and position the roller unit on the roller track without impact.

For roller tracks with just one wall, ensure that the roller unit rollers are not set down next to the roller track.

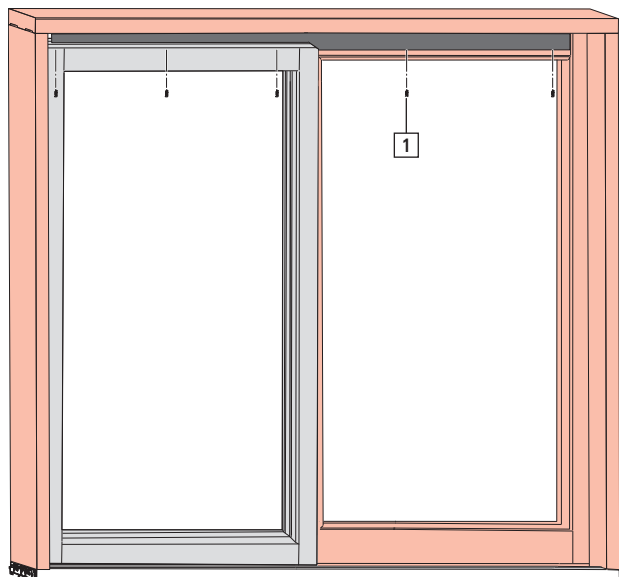
Check that the roller unit rollers are correctly positioned on the roller track by pushing the sash.

Position the operator track on the control units at the top.

Tilt the sash with operator track fitted inwards in a controlled manner at the top until the operator track can be installed in the frame groove provided.



4. Fasten the operator track with screws [1] (screws spaced max. 300 mm apart).

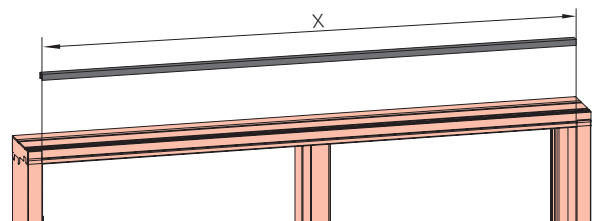


Version with continuous operator track, inserting the sash at the top

1. Move the handle to the sliding position.



2. Cut the operator track to size.



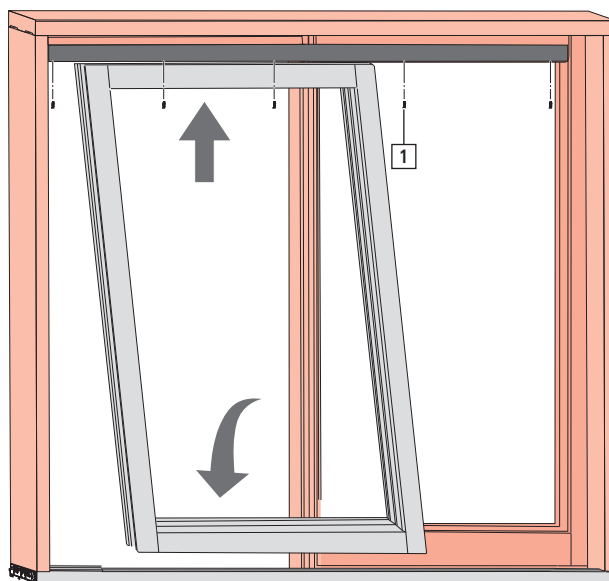
Installation

Joining the sash and frame

Inserting the sash

3. Fasten the operator track with screws [1] (screws spaced max. 300 mm apart).

In front of the access area, guide the sash into the top of the frame until the control units engage in the operator track.



4. Tilt the sash inwards in a controlled manner at the bottom until the roller units are positioned vertically on the roller track.

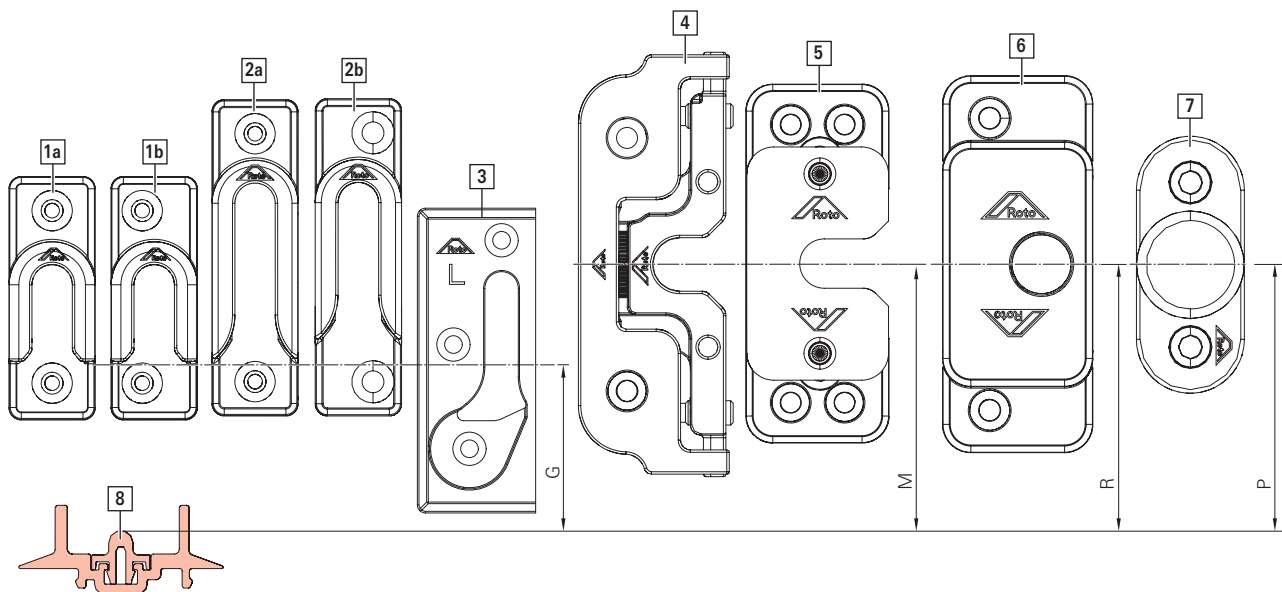
For roller tracks with just one wall, ensure that the roller unit rollers are not set down next to the roller track.

Check that the roller unit rollers are correctly positioned on the roller track by pushing the sash.



9.6.2 Frame component positions

Diagram A



- [1a] Striker, for timber and PVC, screw-on (G1 – G4)
- [1b] Striker (R version), for Salamander | evolutionDrive Plus+, screw-on (G1 – G4)
- [2a] Striker to prevent incorrect operation (G1)
- [2b] Striker to prevent incorrect operation (L version), for Salamander | evolutionDrive Plus+ (G1)
- [3] Striker (L version), for timber, can be routed in (G1 – G4)
- [4] Mullion striker (M1 – M4)
- [5] Mullion security striker (M1 – M4)
- [6] Striker for anti-pushback function (R1 – R2)
- [7] Buffer
- [8] Roller track



INFO

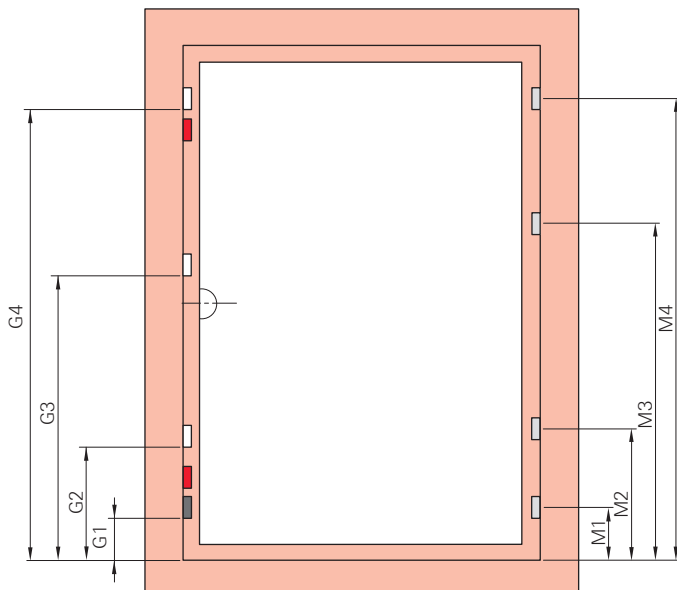
- Align the striker, screw-on, with the point of entry.
- Insert the striker, which can be routed in, in the centre of the routing.
- Align the mullion striker in the centre.
- Dimensions M1 – M4 apply to the coverage between the operator track and control unit of ≥ 9 mm.
- Pay attention to the profile assessment.

Installation

Joining the sash and frame

Frame component positions

Standard



□ Striker (on the locking side), mullion security striker (on the mullion side)

■ Striker to prevent incorrect operation

■ Buffer

Striker, screw-on, on the locking side

SRH [mm]	G1	G2	G3	G4
≤ 1000	86	SRH – 13	–	–
1001 – 1800	86	721	SRH – 13	–
1801 – 2400	86	721	1391	SRH – 13
> 2400	86	721	1791	SRH – 13

Striker, can be routed in, on the locking side

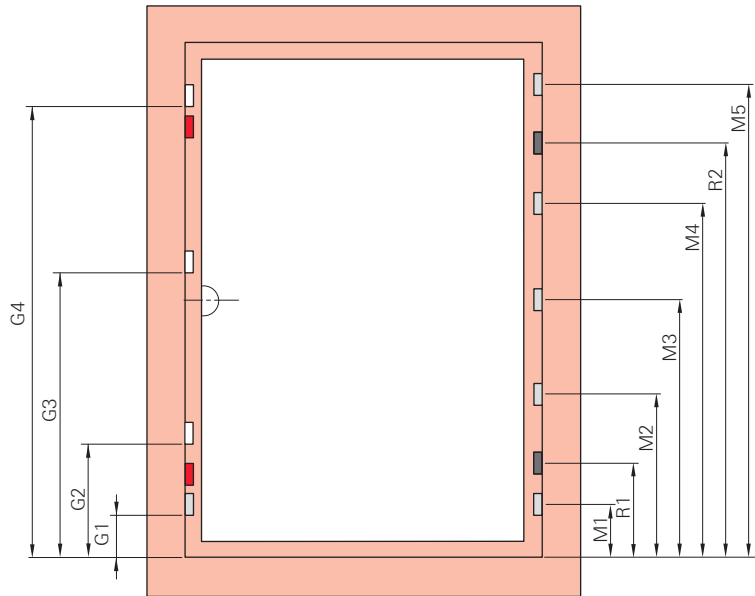
SRH [mm]	G1	G2	G3	G4
≤ 1000	94	SRH – 16	–	–
1001 – 1800	94	718	SRH – 16	–
1801 – 2400	94	718	1388	SRH – 16
> 2400	94	718	1788	SRH – 16

Mullion striker, on the mullion side

SRH [mm]	M1	M2	M3	M4
≤ 1200	91	SRH – 21	–	–
1201 – 1800	91	SRH – 619	SRH – 21	–
1801 – 2000	91	SRH – 819	SRH – 21	–
2001 – 2200	91	SRH – 1019	SRH – 21	–
2201 – 2400	91	SRH – 1219	SRH – 219	–
> 2400	91	SRH – 1619	SRH – 819	SRH – 21



Security



- SEC striker (on the locking side), mullion security striker (on the mullion side)
- Striker for anti-pushback function
- SEC striker to prevent incorrect operation
- Buffer

SEC striker, on the locking side, screw-on

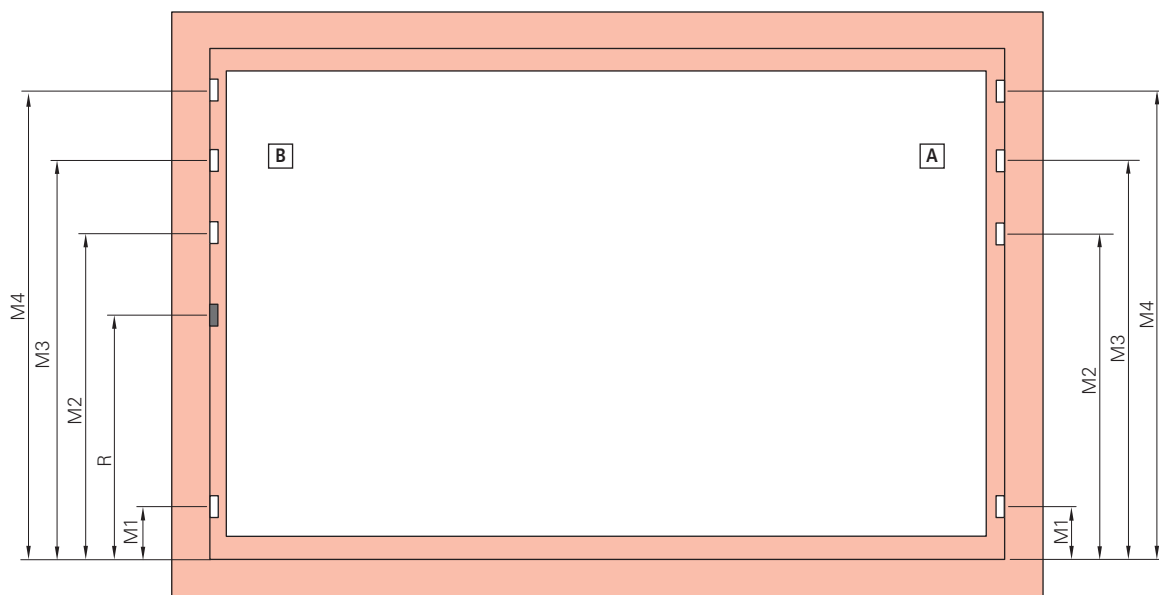
SRH [mm]	G1	G2	G3	G4
≤ 1800	86	721	SRH - 13	–
1801 – 2400	86	721	1391	SRH - 13
> 2400	86	721	1791	SRH - 13

Mullion security striker, on the mullion side

SRH [mm]	M1	R1	M2	M3	M4	R2	M5
≤ 1300	219	349	SRH – 479	–	–	SRH – 279	SRH – 149
1301 – 1500	219	349	SRH – 679	–	–	SRH – 279	SRH – 149
1501 – 1700	219	349	SRH – 879	SRH – 679	–	SRH – 279	SRH – 149
1701 – 1900	219	349	SRH – 1079	SRH – 679	–	SRH – 279	SRH – 149
1901 – 2100	219	349	SRH – 1279	SRH – 679	–	SRH – 279	SRH – 149
2101 – 2300	219	349	SRH – 1479	SRH – 1079	SRH – 679	SRH – 279	SRH – 149
> 2300	219	349	SRH – 1679	SRH – 1079	SRH – 679	SRH – 279	SRH – 149

Diagram C / C'

Standard



[A] First opening sash; [B] Second opening sash

□ Mullion striker

■ Striker for anti-pushback function

Mullion striker, on the mullion side

SRH [mm]	M1	M2	M3	M4
≤ 1200	91	SRH – 21	–	–
1201 – 1800	91	SRH – 619	SRH – 21	–
1801 – 2000	91	SRH – 819	SRH – 21	–
2001 – 2200	91	SRH – 1019	SRH – 21	–
2201 – 2400	91	SRH – 1219	SRH – 219	–
> 2400	91	SRH – 1619	SRH – 819	SRH – 21

Striker for anti-pushback function, on the mullion side

SRH [mm]	R
≤ 1800	SRH – 151
801 – 1000	SRH – 351
1101 – 1200	SRH – 551
1201 – 1400	SRH – 151
1401 – 1600	SRH – 351
1601 – 2400	SRH – 551
> 2400	SRH – 151



9.6.3 Striker, screw-on

9.6.3.1 Preparing the frame for the striker, screw-on

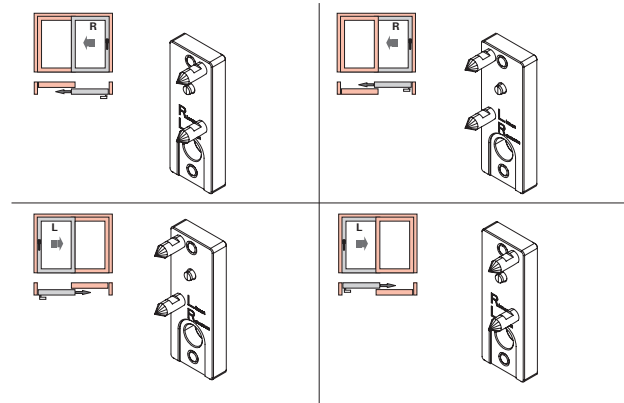


INFO

The marker can be used for sashes that run in-ward or outward.

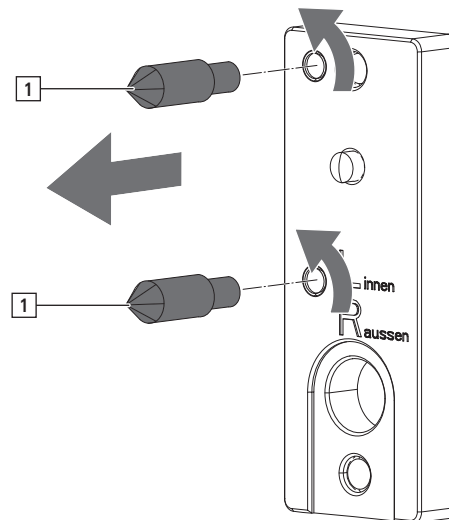
In its delivery state, it is suitable for:

- L version running inward
- R version running outward

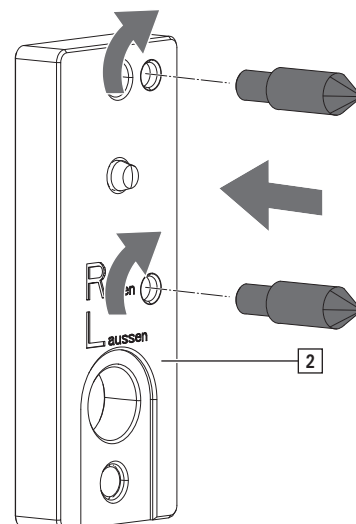


Preparing the marker

1. Unscrew the tip of the marker [1].



2. Turn the marker [2] and reinsert the tip of the marker on the rear.



Installation

Joining the sash and frame

Striker, screw-on

3. Tighten the tip of the marker.



INFO

The marker is now suitable for:

- R version running inward
- L version running outward

Marking a position

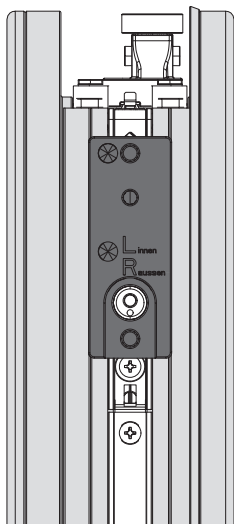
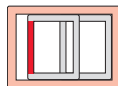
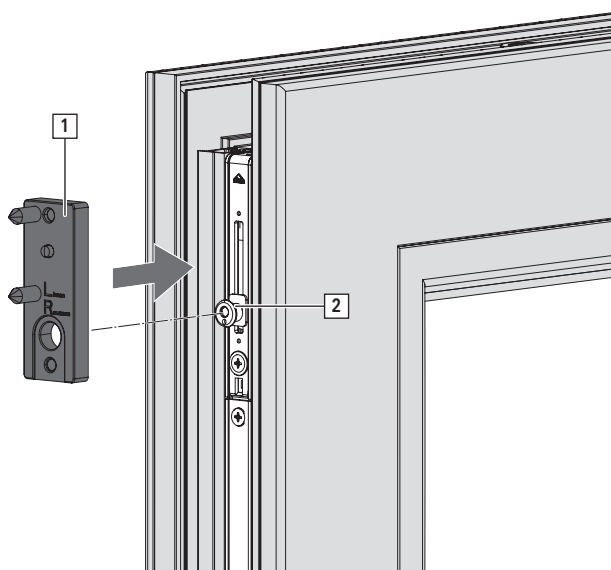
1. Place the markers for strikers, screw-on [1] on the locking side on each locking cam [2].



INFO

When using the marker to determine the correct drill markings, move the handle to the open position.

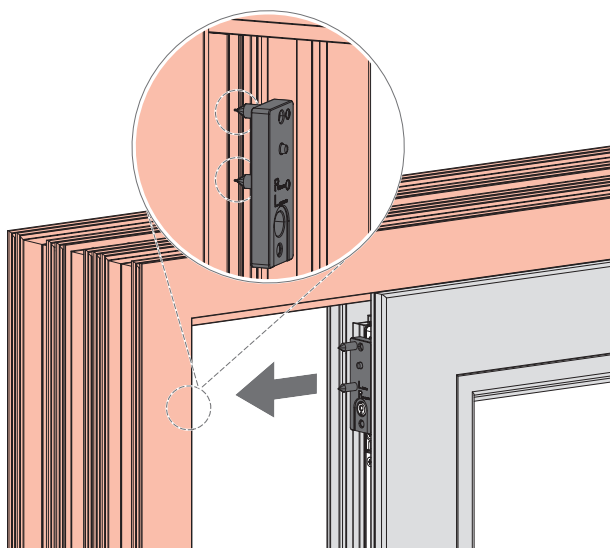
The correct position is ensured using a magnet in the marker.



2. Close the sash with the marker fitted.

View without sash and hardware:

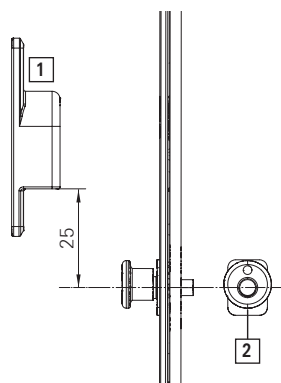
When closing the sash, the tips of the markers create two marks in the frame profile. These mark the correct drilling position for the striker in question.





9.6.3.2 Drilling the holes for the striker

Dimensional drawing in open sliding position



[1] Striker, screw-on

[2] Locking cam

1. For the position of the strikers, see the installation drawing → *from page 243*. Alternatively: with marking jig.



INFO

Predrill the frame profile with steel reinforcement.

Drill: 2x Ø 3.5; depth = X

Drill holes.

Drill: 2 x Ø 4.5 mm; depth = Y

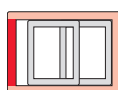
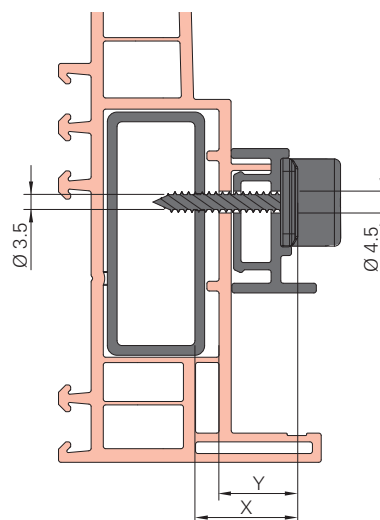


Fig. 9.1: Symmetrical striker

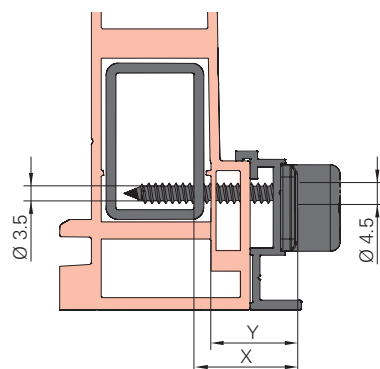


Fig. 9.2: Asymmetrical striker

Installation

Joining the sash and frame

Striker, screw-on

9.6.3.3 Installing the striker

1. Fasten each striker [1] with two screws [2].

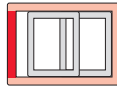
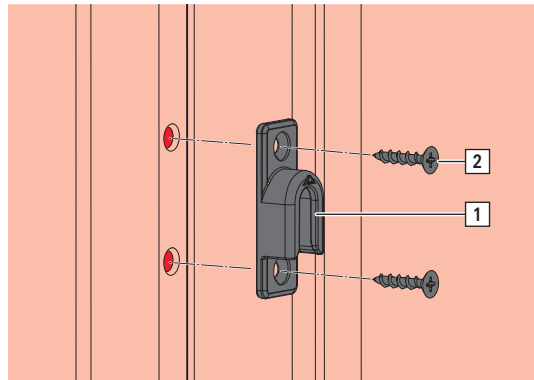


Fig. 9.3: Symmetrical striker

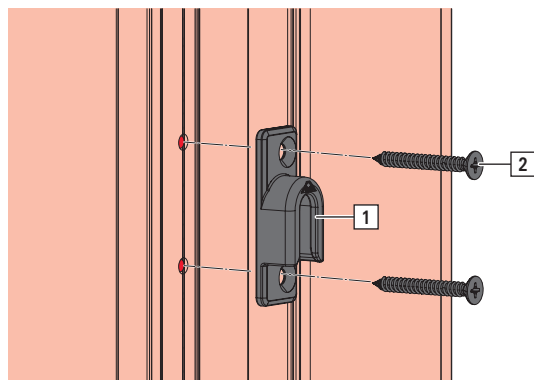


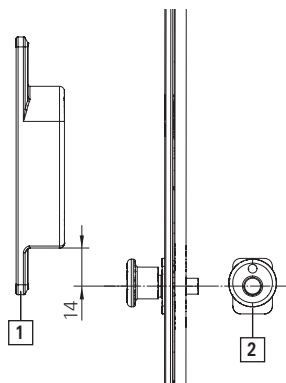
Fig. 9.4: Asymmetrical striker



9.6.4 Striker to prevent incorrect operation

9.6.4.1 Drilling the holes for the striker to prevent incorrect operation

Dimensional drawing in open sliding position



[1] Striker to prevent incorrect operation

[2] Locking cam

Alternatively: use a marker → *from page 217.*

1. For the position of the striker to prevent incorrect operation, see the installation drawing.



INFO

Predrill the frame profile with steel reinforcement.

Drill: 2x Ø 3.5; depth = X

Drill holes.

Drill: 2 x Ø 4.5; depth = Y

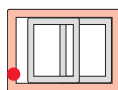
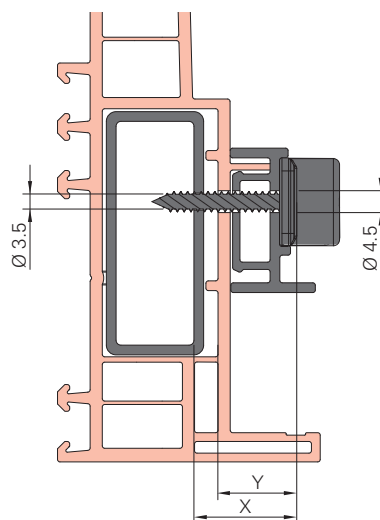


Fig. 9.5: Symmetrical striker

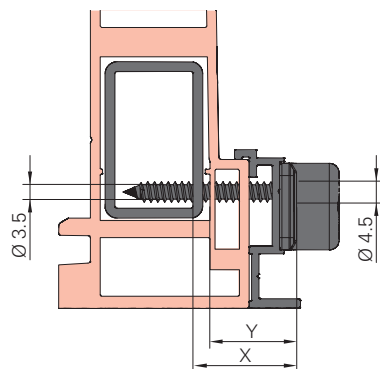


Fig. 9.6: Asymmetrical striker

Installation

Joining the sash and frame

Striker to prevent incorrect operation

9.6.4.2 Installing the striker to prevent incorrect operation

1. Fasten the striker to prevent incorrect operation [1] with two screws [2].



INFO

Note the drilling specifications →
9.6.4.1 "Drilling the holes for the striker to prevent incorrect operation" from page 221.

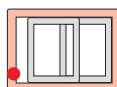
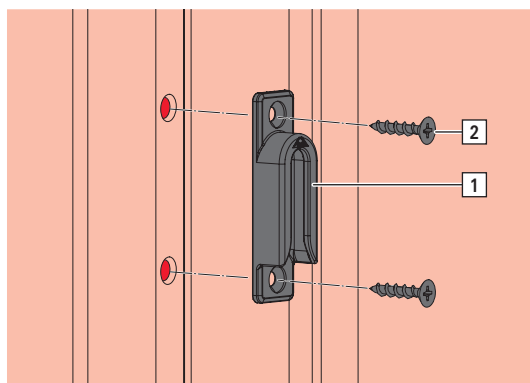


Fig. 9.7: Symmetrical striker to prevent incorrect operation

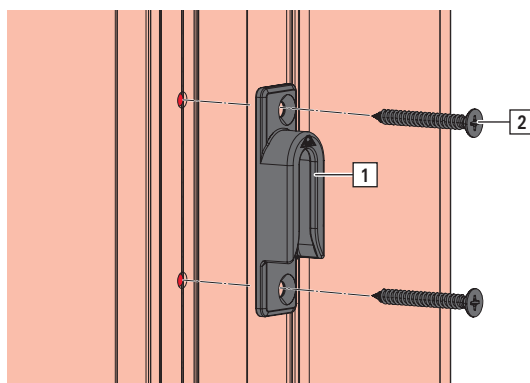


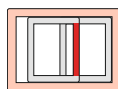
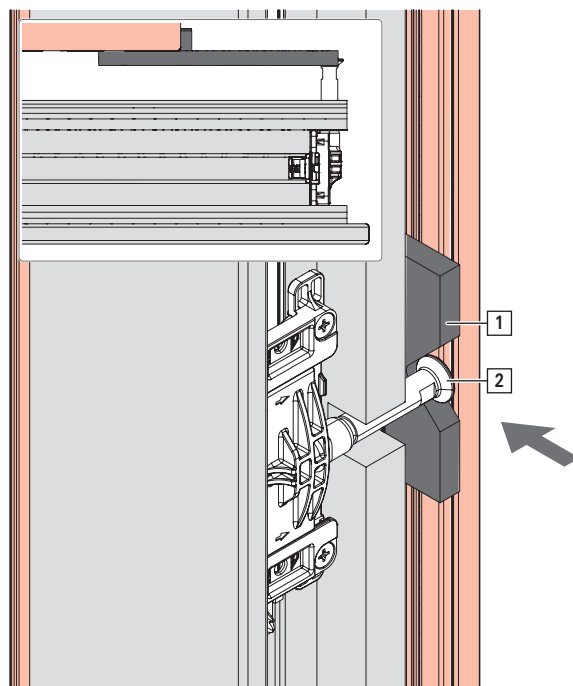
Fig. 9.8: Asymmetrical striker to prevent incorrect operation



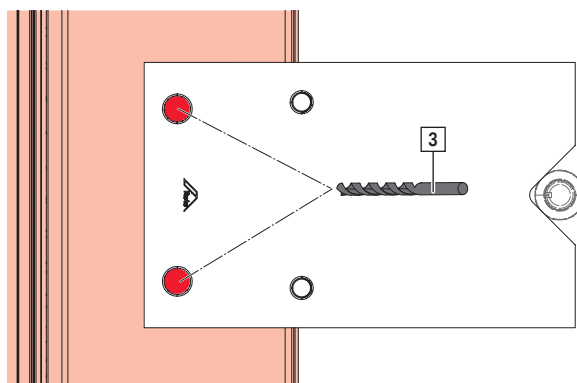
9.6.5 MUL striker

9.6.5.1 Drilling the holes for the MUL striker

1. Place the drilling jig for MUL striker [1] flush against the frame profile at the height of the locking cam [2]. Mark the position of the drilling jig.



2. Drill the holes [3].
Drill: timber Ø 3.0; PVC Ø 3.5



Installation

Joining the sash and frame

SEC MUL striker

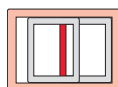
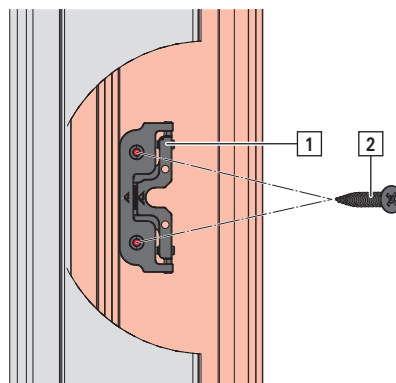
9.6.5.2 Installing the mullion striker

1. Fasten the mullion striker [1] with two screws [2].

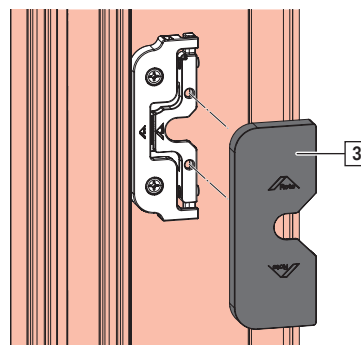


INFO

Note the drilling specifications .



2. Clip the cover cap [3] onto the mullion striker.



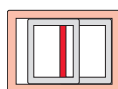
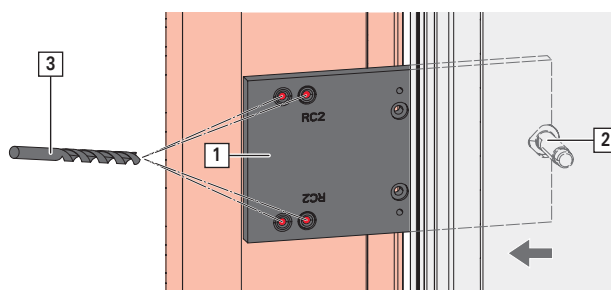
9.6.6 SEC MUL striker

9.6.6.1 Drilling the holes for the mullion security striker

1. Place the drilling jig for the mullion security striker [1] flush against the frame profile at the height of the locking cam [2]. Mark the position of the drilling jig. For better guidance, move the sash with locking cam fitted in the direction of the arrow.

Drill the holes [3].

Drill: timber 4 x Ø 3.0; PVC 4 x Ø 3.5

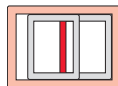
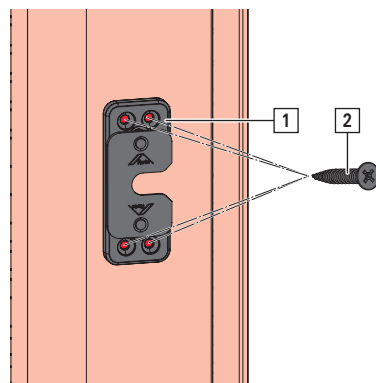




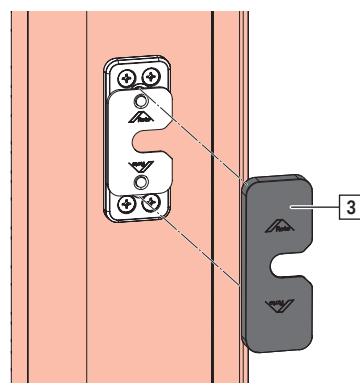
9.6.6.2 Installing the mullion security striker

⇒ Note the drilling specifications .

1. Fasten the mullion security striker [1] with four screws [2].



2. Clip the cover cap [3] onto the mullion security striker.



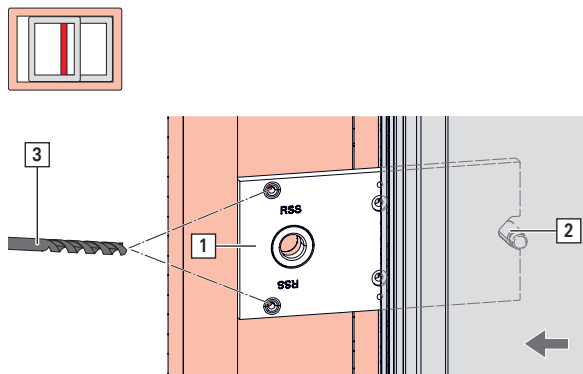
9.6.7 Striker for anti-pushback function

Installing the striker for anti-pushback function

1. Place the drilling jig for the striker for anti-pushback function [1] flush against the frame profile at the height of the pin [2]. For better guidance, move the sash with pin fitted in the direction of the arrow.

Drill the holes [3].

Drill: timber Ø 3.0; PVC Ø 3.5

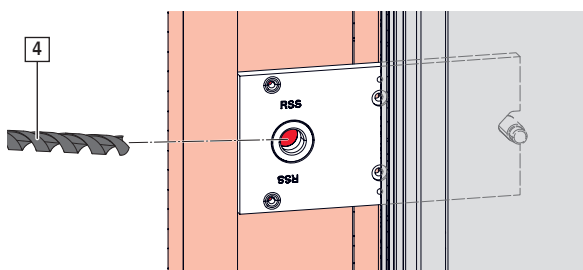


2. Drill the hole [4].

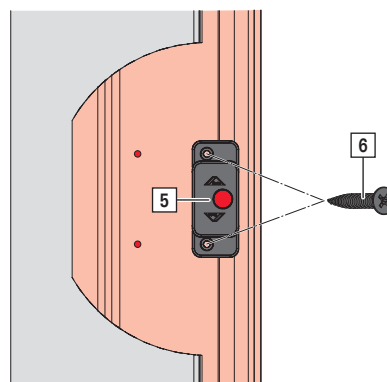
Drill: Ø 12.5 mm

**INFO**

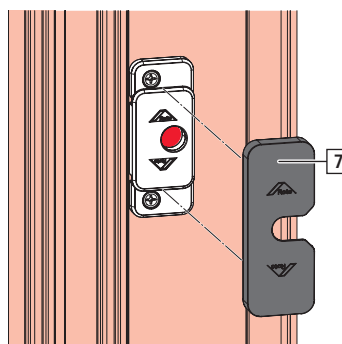
Refer to the system-specific profile assessment for the drilling depth.



3. Fasten the striker for anti-pushback function [5] with two screws [6].



4. Clip the cover cap [7] onto the striker for anti-pushback function.





9.6.8 Activator and packer

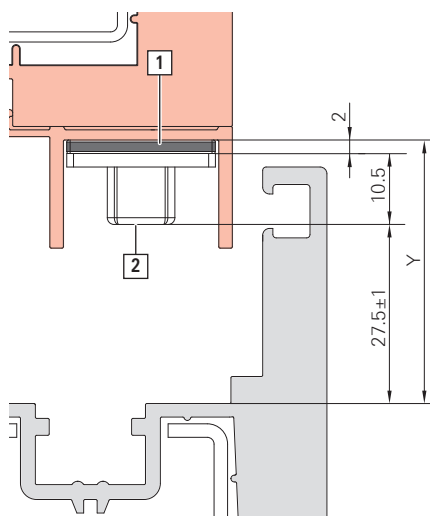
- ⇒ The control unit with Soft function comes assembled in its delivery state (= untensioned).
- ⇒ The element is glazed.
- ⇒ Pressure-proof packers have been placed underneath the frame profile in the area of the activator.

9.6.8.1 Preparing the positioning jig

- ⇒ The control unit with Soft function comes assembled in its delivery state (= untensioned).
- ⇒ The element is glazed.
- ⇒ Pressure-proof packers have been placed underneath the frame profile in the area of the activator.

Determining the quantity of packers

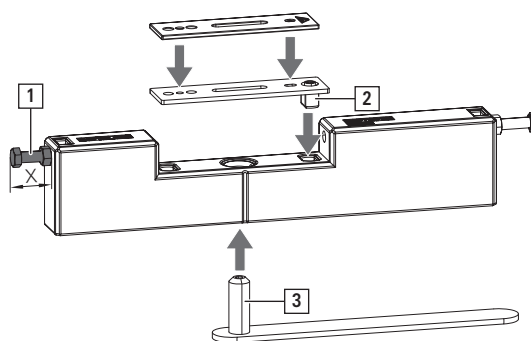
1. Calculate or refer to the profile assessment for the quantity of packers required [1].
 Quantity of packers = $(Y - 38) / 2$
 Maintain a distance of 27.5 ± 1 mm between the highest point of the activator [2] and the control unit supporting surface.



Adjusting and equipping the positioning jig for the activator with a centre screw fixing

On the locking side for control unit with SoftClose

1. Adjust the screw [1] on the "SoftClose" side (X = profile-related).
2. If necessary, connect the packer to the activator using locating aids. Ensure that the slots are aligned.
3. Place everything in the positioning jig mount. The activator bolt [2] is facing towards the "SoftOpen" text.
4. Insert the drilling aid [3] into the positioning jig.



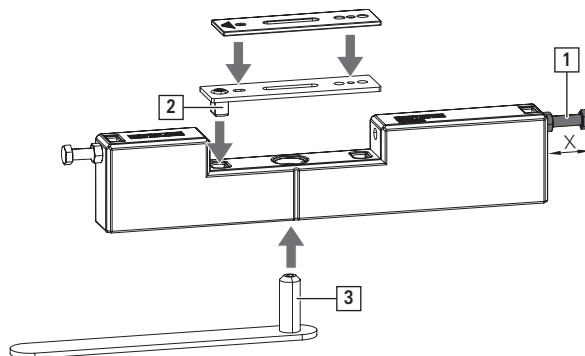
Installation

Joining the sash and frame

Activator and packer

On the mullion side for control unit with SoftOpen

1. Adjust the screw [1] on the "SoftOpen" side (X = profile-related).
2. If necessary, connect the packer to the activator using locating aids. Ensure that the slots are aligned.
3. Place everything in the positioning jig mount. The activator bolt [2] is facing towards the "SoftClose" text.
4. Insert the drilling aid [3] into the positioning jig.



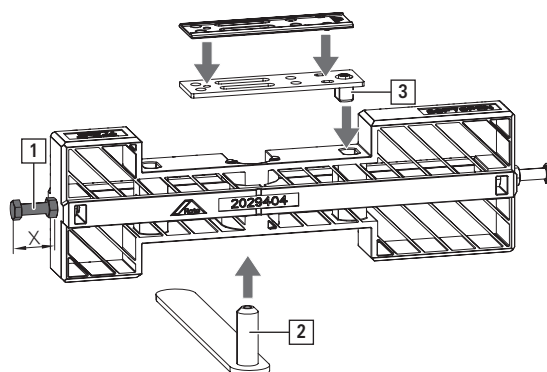
Control unit with SoftStop

Prepare SoftClose or SoftOpen accordingly, depending on the installation situation.

Adjusting and equipping the positioning jig for the activator with an asymmetrical screw fixing

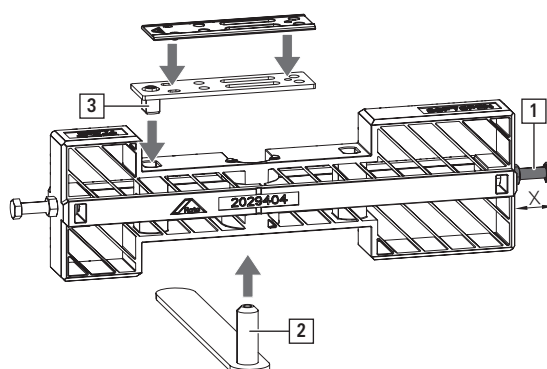
On the locking side for control unit with SoftClose

1. Adjust the screw [1] on the "SoftClose" side (X = profile-related).
2. Align the positioning jig so that the drilling aid mount [2] is facing towards the side on which the holes were drilled for the activator.
3. If necessary, connect the packer to the activator using locating aids. Ensure that the slots are aligned.
4. Place everything in the positioning jig mount. The activator bolt [3] is facing towards the "SoftOpen" text.
5. Insert the drilling aid into the positioning jig.



On the mullion side for control unit with SoftOpen

1. Adjust the screw [1] on the "SoftOpen" side (X = profile-related).
2. Align the positioning jig so that the drilling aid mount [2] is facing towards the side on which the holes were drilled for the activator.
3. If necessary, connect the packer to the activator using locating aids. Ensure that the slots are aligned.
4. Place everything in the positioning jig mount. The activator bolt [3] is facing towards the "SoftClose" text.
5. Insert the drilling aid into the positioning jig.





9.6.8.2 Diagram A



INFO

Pay attention to the profile assessment.

Installation without a positioning jig

Installing the activator with / without packer(s) on the locking side

1. Predrill a hole for the screw [1] (for dimensions X and Y, see the profile assessment).

If necessary, connect the packer to the activator using locating aids. Ensure that the slots are aligned.

Slightly tighten the activator with one screw to position it so that the activator can still be moved. The activator bolt [2] is facing towards the centre of the access area.

Close the sash slowly and open it again to move the activator into the installation position.

Predrill the holes for screws [3].

Fasten the activator with three screws.

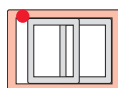
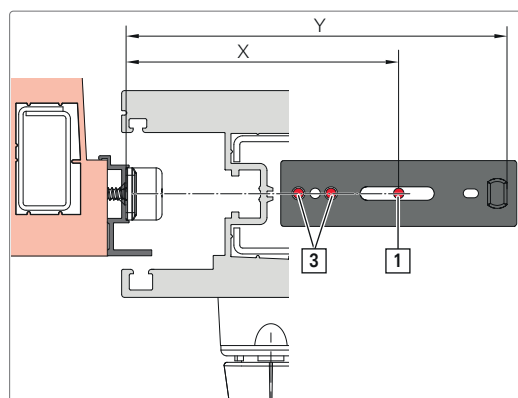
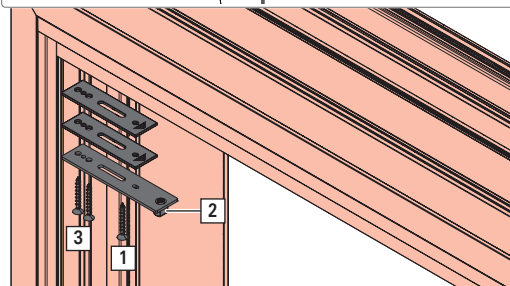


Fig. 9.9: Activator and packers with a centre screw fixing

Installing the activator with / without packer(s) on the mullion side

1. Predrill a hole for the screw [1] (for dimension Z, see the profile assessment).

Slightly tighten the activator with one screw to position it (for dimension Y, see the profile assessment) so that the activator can still be moved. The activator bolt is facing towards the centre of the access area.

Slowly open the sash fully and close it again to move the activator into the installation position.

Predrill the holes for screws [2].

Fasten the activator with three screws.

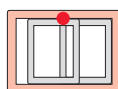
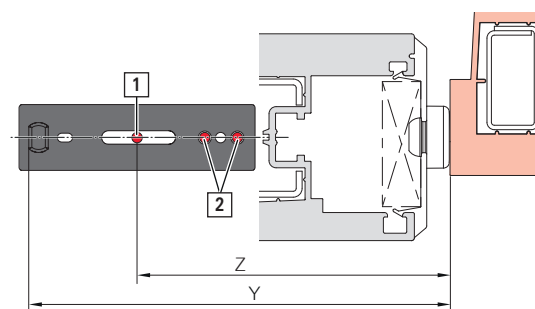


Fig. 9.10: Activator and packers with a centre screw fixing



INFO

Control unit with SoftOpen: if the sash should not hit the buffer, move the activator screw position by at least 21 mm ($Z + 21$ and $Y + 21$).

Installation

Joining the sash and frame

Activator and packer

Installation with a positioning jig

Installing the activator with / without packer(s) using a positioning jig on the locking side

1. Insert the equipped positioning jig into the operator track and push the screw head of the adjusting screw onto the frame on the locking side until it reaches the stop.

Predrill through the drilling aid with a Ø 3.5 drill [A].

Remove the drilling aid.

Slightly tighten the activator with one screw [5] through the positioning jig to position it so that the activator can still be moved.

Remove the positioning jig.

Close the sash slowly and open it again to move the activator into the installation position.

Predrill the holes for screws [6] in the same screw axis as the first screw.

Fasten the activator with three screws.

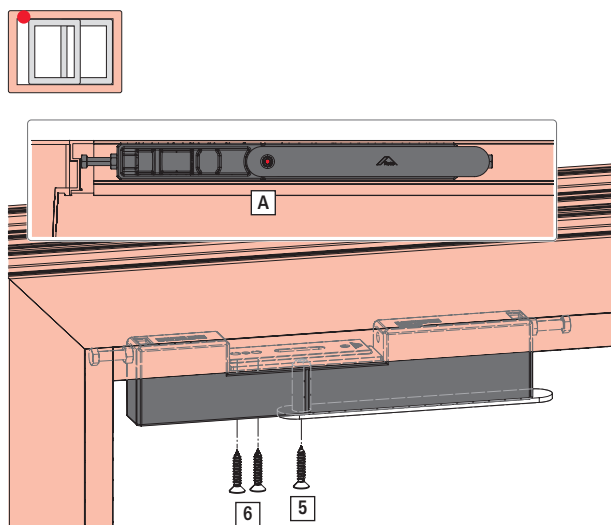


Fig. 9.11: Activator and packers with a centre screw fixing

Installing the activator with / without packer(s) using a positioning jig on the mullion side

1. Insert the equipped positioning jig into the operator track. Push the screw head of the adjusting screw onto the frame on the mullion side until it reaches the stop.

Predrill through the drilling aid with a Ø 3.5 drill [A].

Remove the drilling aid.

Slightly tighten the activator with one screw [5] through the positioning jig to position it so that the activator can still be moved.

Remove the positioning jig.

Close the sash slowly and open it again to move the activator into the installation position.

Predrill the holes for screws [6] in the same screw axis as the first screw.

Fasten the activator with three screws.

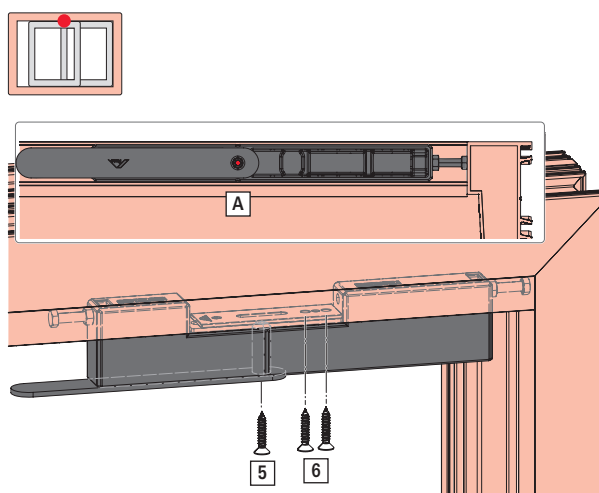


Fig. 9.12: Activator and packers with a centre screw fixing

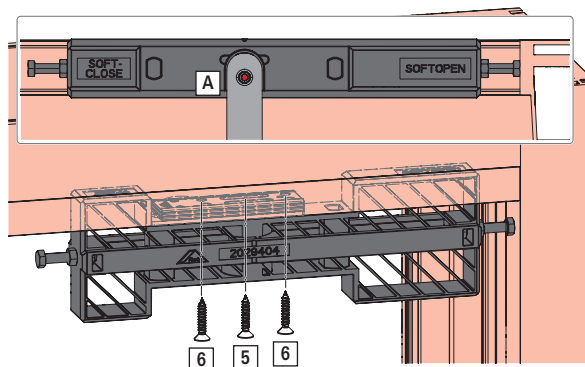
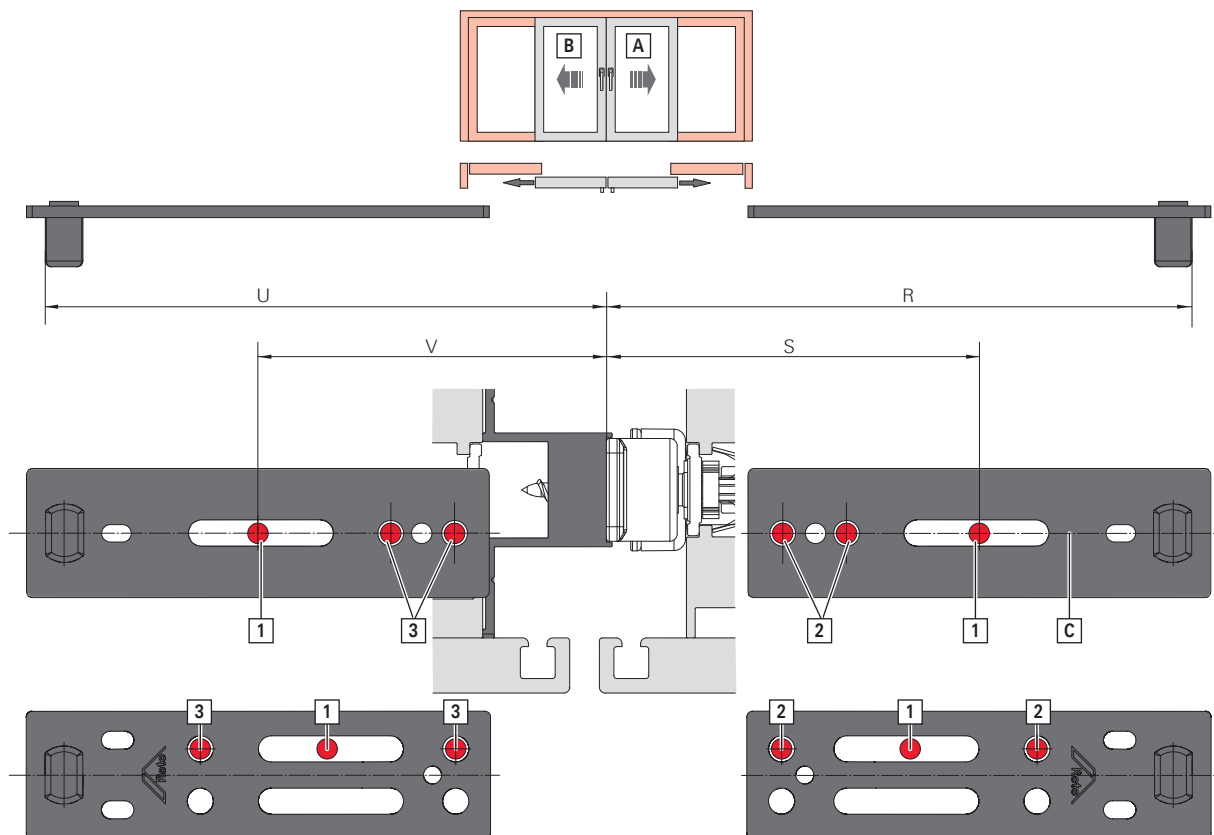


Fig. 9.13: Activator and packers with an asymmetrical screw fixing



9.6.8.3 Diagram C



- [A] First opening sash
- [B] Second opening sash
- [C] Centre of guide groove in the operator track

1. Connect the packers to the activator using locating aids. Ensure that the slots are aligned.

Predrill a hole for the screw [1] (for the first opening sash to dimension S, for the second opening sash to dimension V, see profile assessment). Slightly tighten every activator with one screw each to position them (for dimensions R and U, see the profile assessment) so that the activator can still be moved.

Close the second opening sash [B] slowly and open it again to move the activator into the installation position.

Predrill the holes for screws [2].

Fasten with three screws.

Close the second opening sash and move the handle to the closed position.

Close the first opening sash [A] slowly and open it again to move the activator into the installation position.

Predrill the holes for screws [3].

Fasten with three screws.

9.6.9 Tensioning the control unit with soft function

**CAUTION**

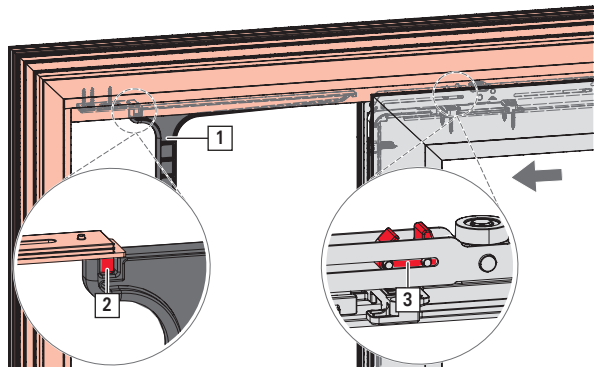
Risk of injury caused by tensioning the control unit with soft function by hand.

When installing the control unit with soft function, tensioning by hand may cause injuries due to sharp edges.

1. Only tension the control unit with soft function using a tensioning tool.

1. Mount the tensioning tool recess [1] in the activator bolt [2].

Push the element shut slowly until the connector [3] on the tensioning tool engages in the control unit with soft function.



2. Open up the element slowly to activate the soft function. The connector on the tensioning tool will be released automatically.



9.6.10 Tilt protection device



DANGER

The uncontrolled tilting of sashes with aspect ratios > 2:1 poses a risk of death!

Uncontrolled tilting may cause sashes with aspect ratios > 2:1 to jump out of the operator track. This may lead to hazardous situations and cause serious or fatal accidents.

- ▶ The roller track must have two walls → 3.6 "Dimensions of the roller track" from page 31.
- ▶ Install the tilt protection device (only without control unit with Soft function) → 3.7 "Dimensions of the tilt protection device" from page 31.
- ▶ An installation space examination is a mandatory part of a profile assessment.



ATTENTION

Premature installation may cause property damage.

If the tilt protection device is installed before the sash and frame are joined, this can damage the installed hardware.

1. Only install the device once the sash and frame have been joined.

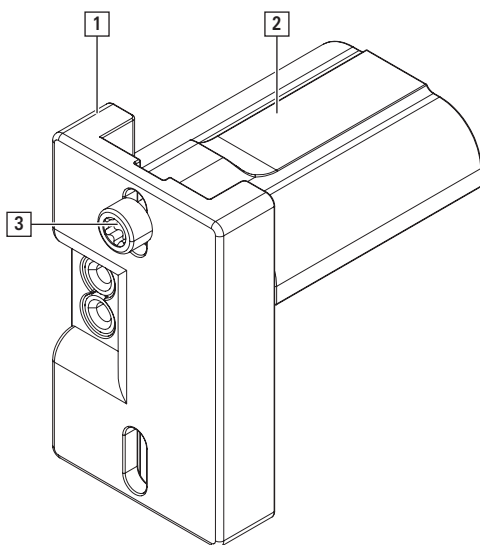


INFO

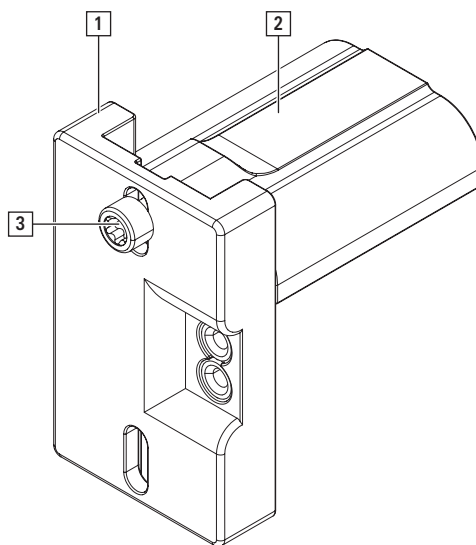
Example diagram. Drilling patterns are profile-related (available upon request).

Preparing the drilling jig

For use on the locking side



For use on the mullion side



1. Detach the drilling plate [1] from the stop [2] by loosening the screw [3].
2. Turn the drilling plate 180°.
3. Fasten the drilling plate to the stop with one screw.

Installation

Joining the sash and frame

Tilt protection device

Drilling the holes for the tilt protection device

1. Open the sash.

Loosen the screw [1] on the drilling plate [2].

Position the drilling jig on the corner of the sash at the top on the locking side.

- **Inward running sashes:** position the drilling jig so that the side with the drill holes is facing **away** from the handle.
- **Outward running sashes:** position the drilling jig so that the side with the drill holes is facing **to-wards** the handle.

Push the drilling plate up until it reaches the stop on the operator track [3].

Fasten the drilling plate with a screw again.

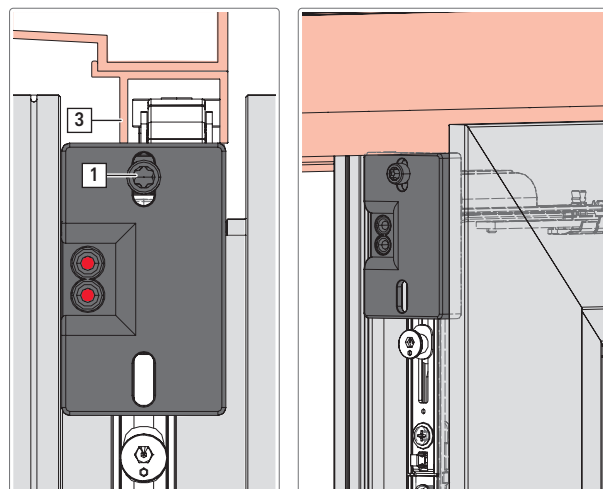
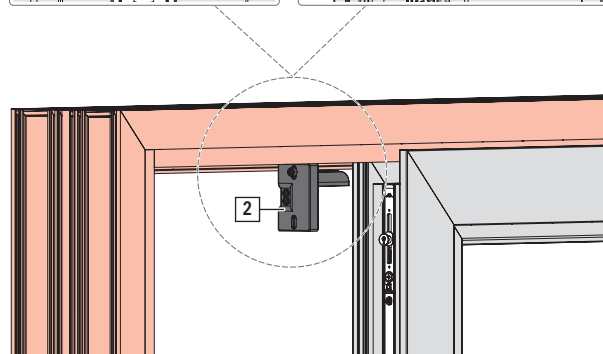
Align the drilling jig so that it is centred relative to the hardware and drill through two walls.

Drill: 2 x Ø 3.5



INFO

Screw lengths are profile-related.

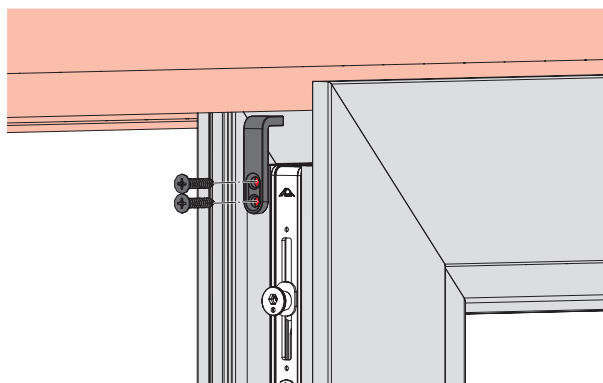


Installing the tilt protection device

⇒ The adapter profile (if present) is routed .

⇒ The adapter profile stops flush with the sash rebate.

1. Fasten the tilt protection device with two screws through two walls.

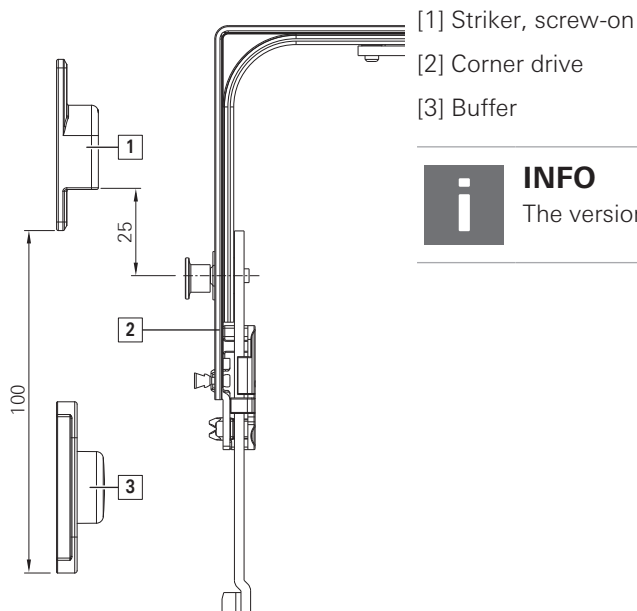




9.6.11 Buffer

9.6.11.1 Drilling the holes for the buffer

Installation drawing in open sliding position



INFO

The version on the bottom is mirror-inverted.

1. Drill holes.

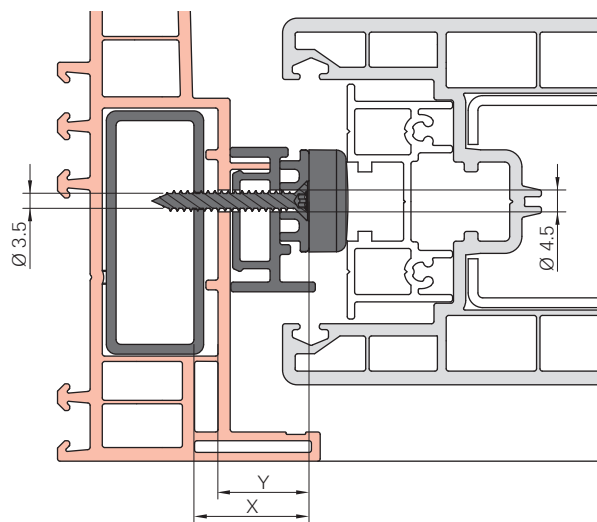


INFO

Predrill the frame profile with steel reinforcement.

Drill: 2x Ø 3.5; depth = X

Drill: 2 x Ø 4.5; depth = Y

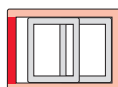
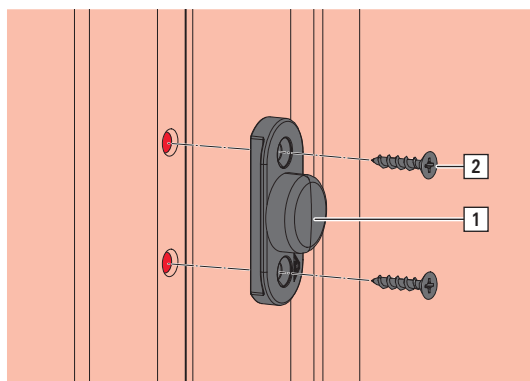


9.6.11.2 Installing the buffer

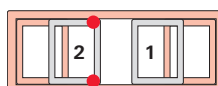
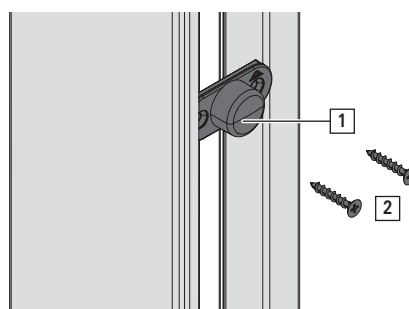
1. Fasten each buffer [1] with two screws [2].

**INFO**

Note the drilling specifications →
9.6.11.1 "Drilling the holes for the buffer" from page 235.

**Exception: timber, diagram C'**

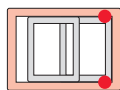
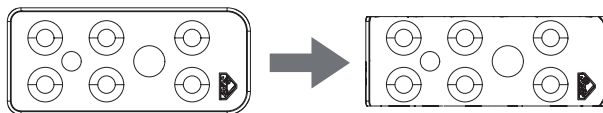
1. Align the buffer [1] horizontally and fasten with two screws [2].



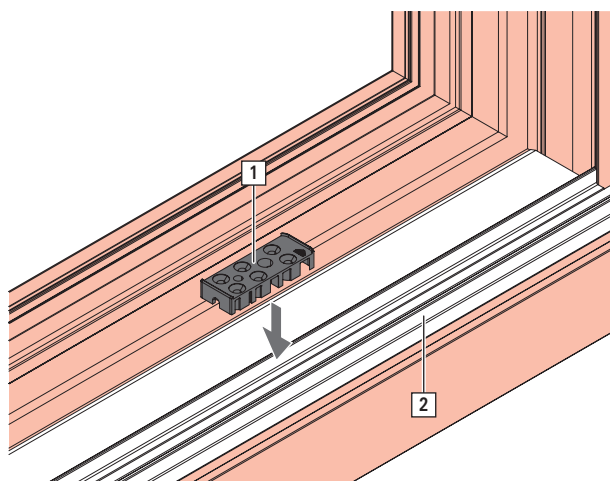


9.6.12 End stop with packer

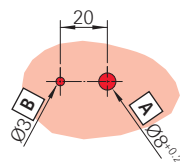
1. Adapt the end stop and, if necessary, the end stop packer on a profile-related basis.



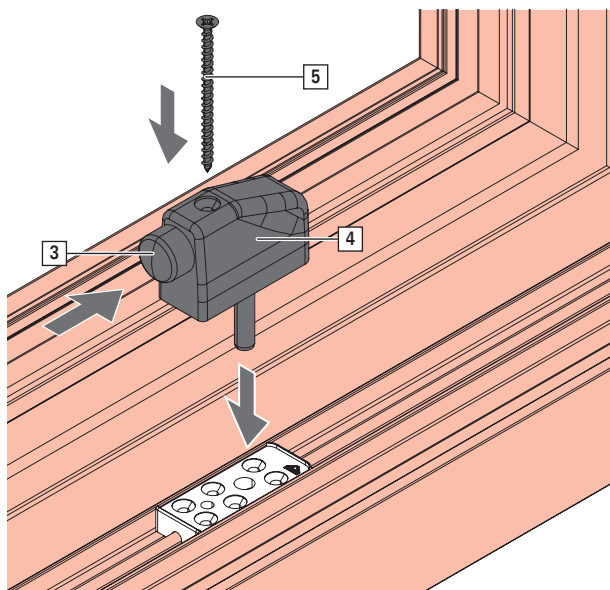
2. Place the end stop packer [1] on the roller track [2] and fasten with screws.



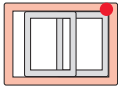
3. Drill the holes for the end stop.
[A]: $\varnothing 8.0+0.2$ (1x)
[B]: predrill $\varnothing 3.0$ (1x)



4. Install the rubber buffer [3] in the end stop [4], position it on a packer, and fasten with a screw [5].



9.6.13 Operator track stopper

**INFO**

Pay attention to the profile assessment.

Installation without a positioning jig

1. If necessary, connect the packer [1] to the stopper [2] using locating aids. Ensure that the slots are aligned.

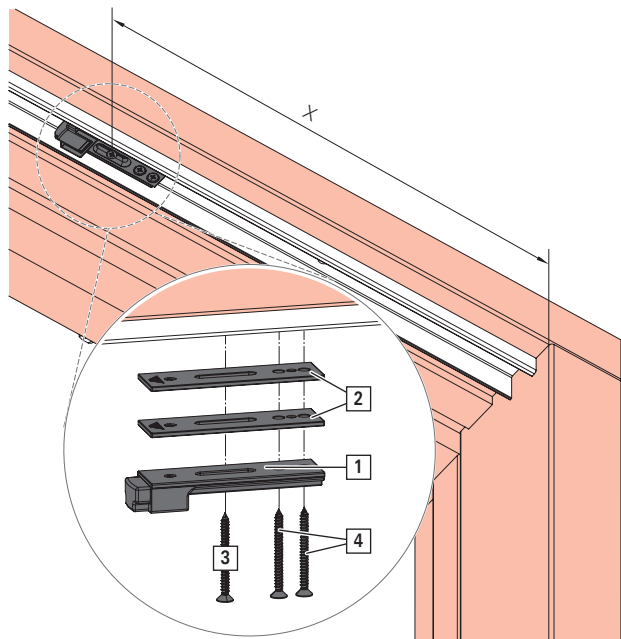
Predrill a hole for the screw [3] (dimension X can be freely selected).

Slightly tighten the stopper with one screw to position it so that the stopper can still be moved. The stopper buffer side is facing towards the centre of the access area.

Open the sash slowly and close it again to move the stopper into the installation position.

Predrill the holes for screws [4].

Fasten the stopper with three screws.





Installation with a positioning jig

Installing the operator track stopper, diagram A

1. Adjust the screw [1] (dimension X can be freely selected).

If necessary, connect the packer [2] to the stopper [3] using locating aids. Ensure that the slots are aligned.

Place everything in the positioning jig mount.

Insert the drilling aid [4] into the positioning jig.

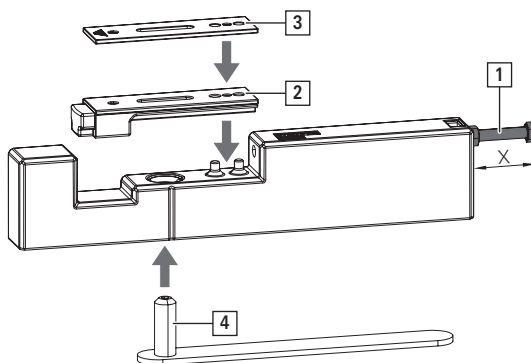


Fig. 9.15: Stopper and packers with a centre screw fixing

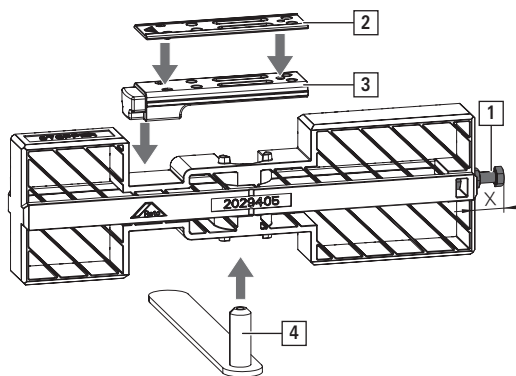


Fig. 9.16: Stopper and packers with an asymmetrical screw fixing

Installation

Joining the sash and frame

Operator track stopper

2. Insert the equipped positioning jig into the operator track and push the screw head of the adjusting screw onto the frame until it reaches the stop.
Predrill through the drilling aid with a $\varnothing 3.5$ drill [A].
Remove the drilling aid.
Slightly tighten the stopper with one screw [5] through the positioning jig to position it so that the stopper can still be moved.
Open the sash slowly and close it again to move the stopper into the installation position.
Predrill the holes for screws [6].
Fasten the stopper with three screws.

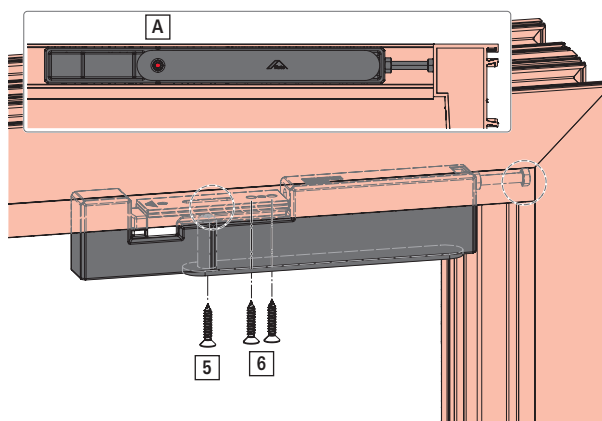


Fig. 9.17: Stopper and packers with a centre screw fixing

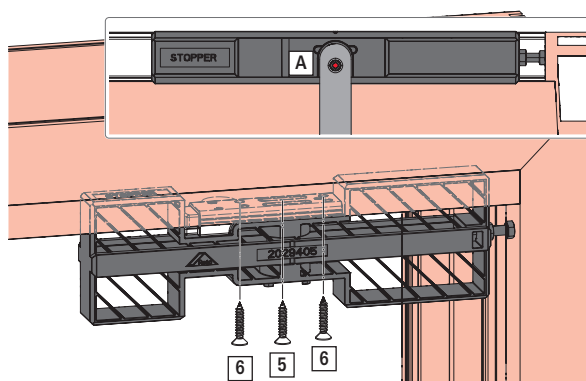
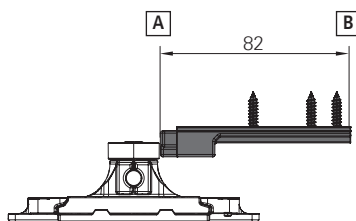


Fig. 9.18: Stopper and packers with an asymmetrical screw fixing

Installing the operator track stopper, diagram C

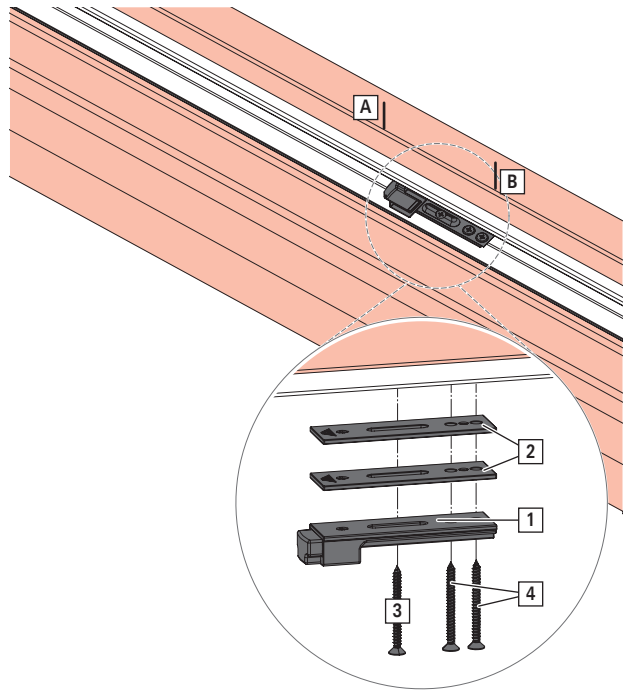
⇒ The second opening sash is on the bench: mark the position of the roller outer edge of the control unit on the espagnolette side [A].

1. Close the second opening sash.
Transfer the marking for the "position of the roller outer edge of the control unit" from the sash to the frame and move it 82 mm towards the espagnolette side [B].





2. Insert the stopper [1] and, if required, packers [2] into the operator track.
Move the stopper up to the marking [B].
Fasten loosely with one screw [3] but so that it is not yet secure.
Check the stopper position and reposition if necessary.
Fasten the stopper with three screws.



9.6.14 Rubber buffer



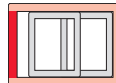
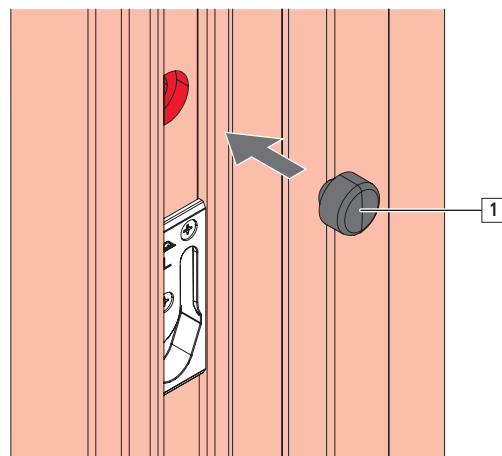
Installing the rubber buffer

1. Insert the rubber buffer [1].



INFO

Note the drilling specifications → *from page 174.*



9.6.15 Notes on final assembly



DANGER

Risk of death caused by excessive bending of the running profile.

Incorrect installation of the sash in an element that bends by ≥ 3 mm may cause the sash to fall out.

1. Underlay the element so that it bends by < 3 mm.



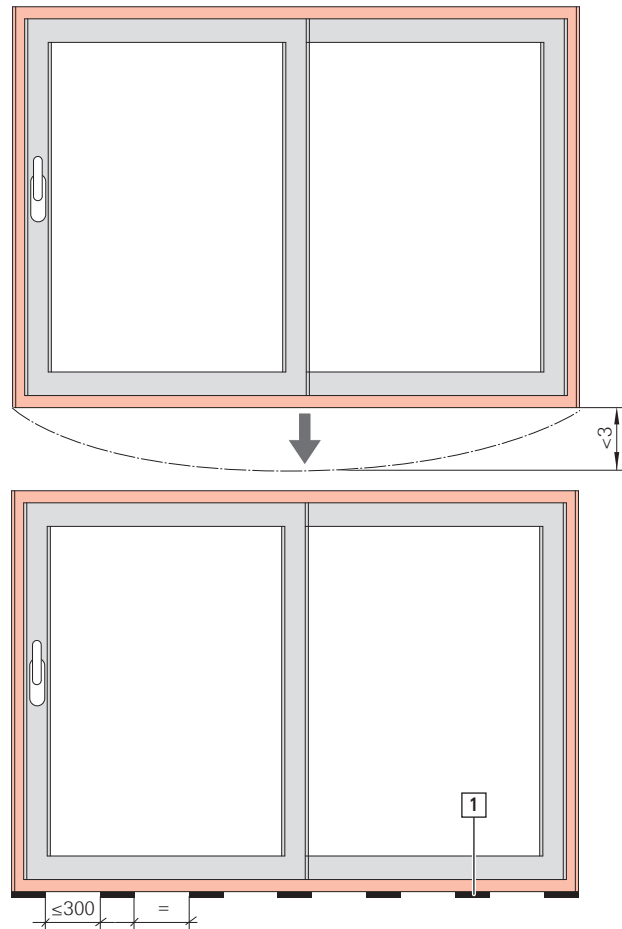
INFO

In order to ensure that the element works properly and is safe, the bending of the frame must not exceed 3 mm.



INFO

Place supports uniformly under the threshold across its entire area (spaced max. 300 mm apart, profile-related).



[1] Packer



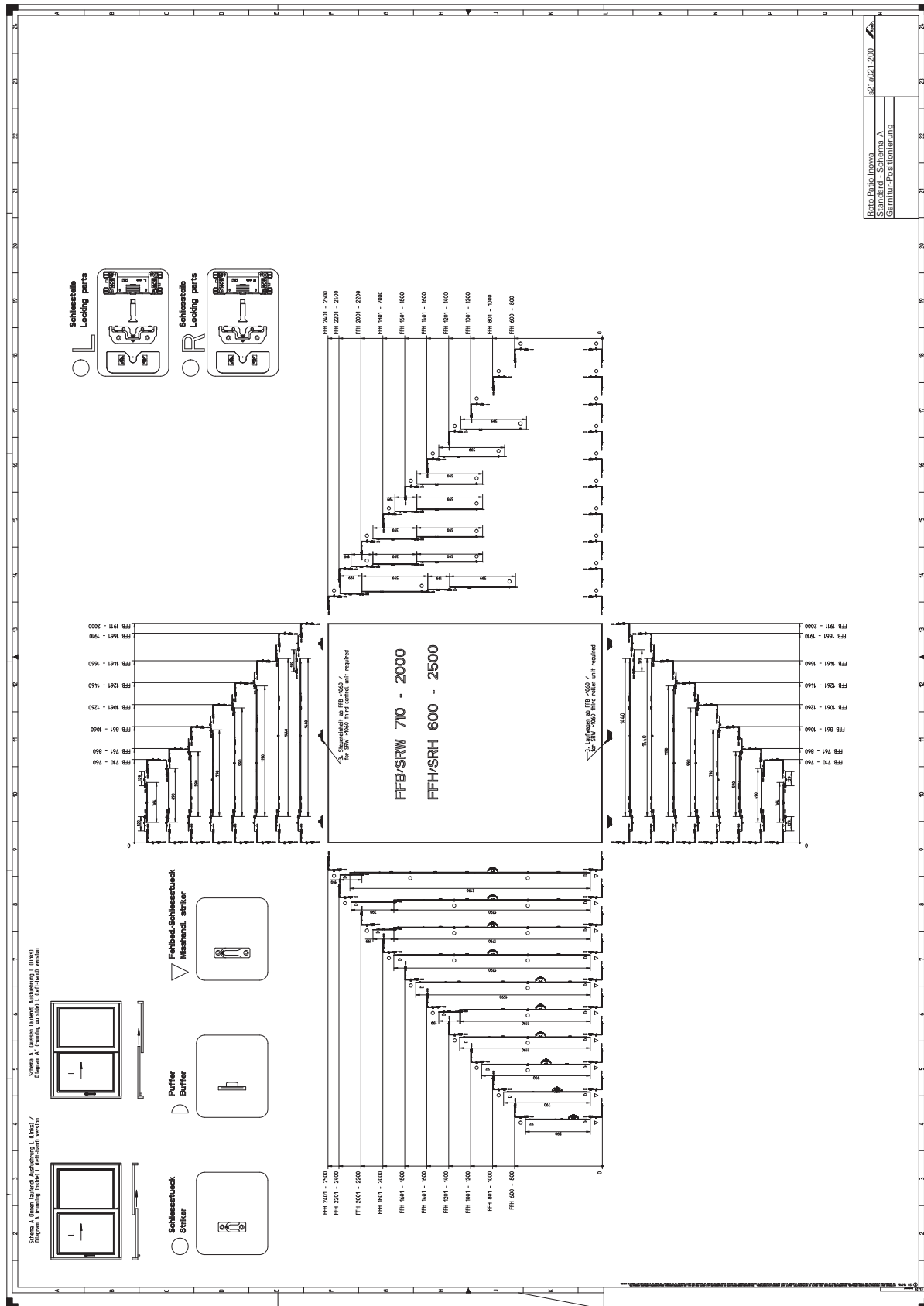
10 Installation drawings

10.1 Explanation

The following markings are used in the installation drawings to emphasise references and other elements:

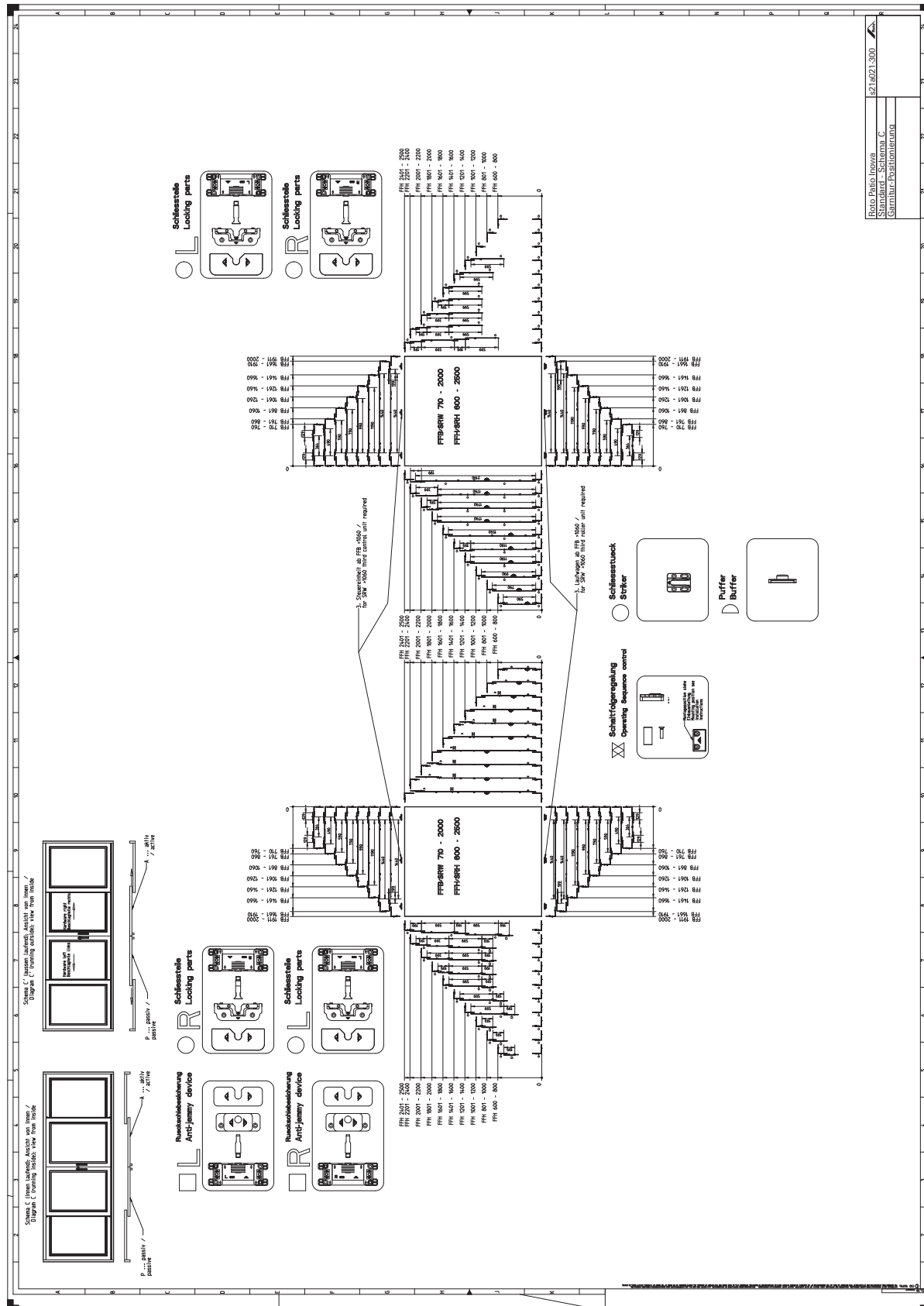
Marking	Meaning
3. Laufwagen ab FFB > 1060	Third roller unit from SRW > 1060 mm
3. Steuereinheit ab FFB > 1060	Third control unit from SRW > 1060 mm
aktiv	First opening
Ansicht von innen	View from inside
Ausfuehrung	Version
aussen laufend	Running outward
Beschlagteile links	Hardware components, left
Beschlagteile rechts	Hardware components, right
FFB	Sash rebate width
Fehlbed.-Schliessstueck	Striker to prevent incorrect operation
Fehlbed.-Schliessstueck RC2	SEC striker to prevent incorrect operation
FFH	Sash rebate height
Garnitur-Positionierung	Set positioning
innen laufend	Running inward
L	Left
links	Left
Montageposition siehe Einbauanleitung	For the installation position, see the installation instructions / profile assessment
passiv	Second opening
Puffer	Buffer
R	Right
RC 2 / RC 2 N	RC 2 / RC 2 N
Rueckschiebesicherung	Anti-pushback function
Schaltfolgeregelung	Operating sequence control
Schema A	Diagram A
Schema A'	Diagram A'
Schema C	Diagram C
Schema C'	Diagram C'
Schliessstueck	Striker
Schliessstueck RC2	RC 2 striker
Schliessteile	Locking components
Standard	Standard

10.2 Diagram A, K, A', K'



[illegible]

10.4 Diagram C, C'





11 Adjustment



INFO

Roto hardware components may only be adjusted by authorised professionals when the element is installed.

11.1 Striker

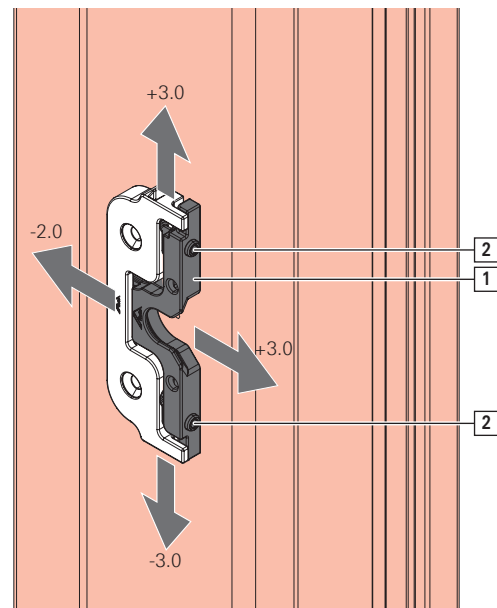
Lateral and height adjustment

1. Close the window sash (open handle position).
2. Adjust the striker [1] using two threaded pins [2] in the fastening plate.
Tool: size 2.5 hex key.



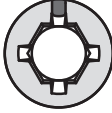
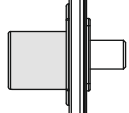
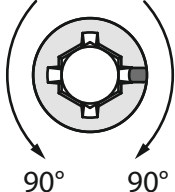
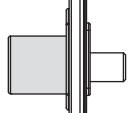
INFO

The striker features variable height adjustment, which permits an installation tolerance of ± 3 mm for the locking cam.

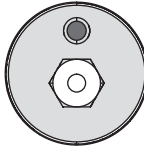
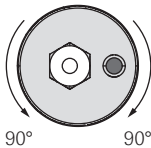
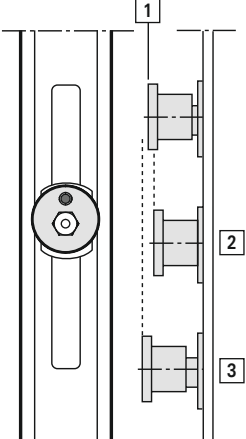
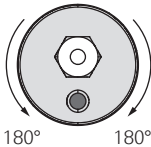
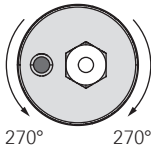
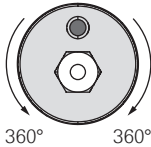


11.2 Adjusting the locking cam

E cam

E cam	Adjustment distance	Gasket compression adjustment [mm]	Height	Side view
				
	 90° 90°	±0.8 mm		

V cam

V cam	Adjustment distance	Gasket compression adjustment [mm]	Height adjustment [mm]	Side view
			+1.5 mm -0.8 mm	
	 90° 90°	±0.8 mm	±0.125 mm	 [1] 0 = initial position [2] -0.8 mm max. adjustment [3] +1.5 mm max. adjustment
	 180° 180°		±0.25 mm	
	 270° 270°	±0.8 mm	±0.375 mm	
	 360° 360°		±0.5 mm	



11.3 Mullion locking cam / pin for anti-pushback function – adjustable



CAUTION

Property damage caused by using non-adjustable components!

If non-adjustable components are adjusted, they will no longer be securely fitted in the centre closer. This may prevent the closing function from working properly or damage the frame.

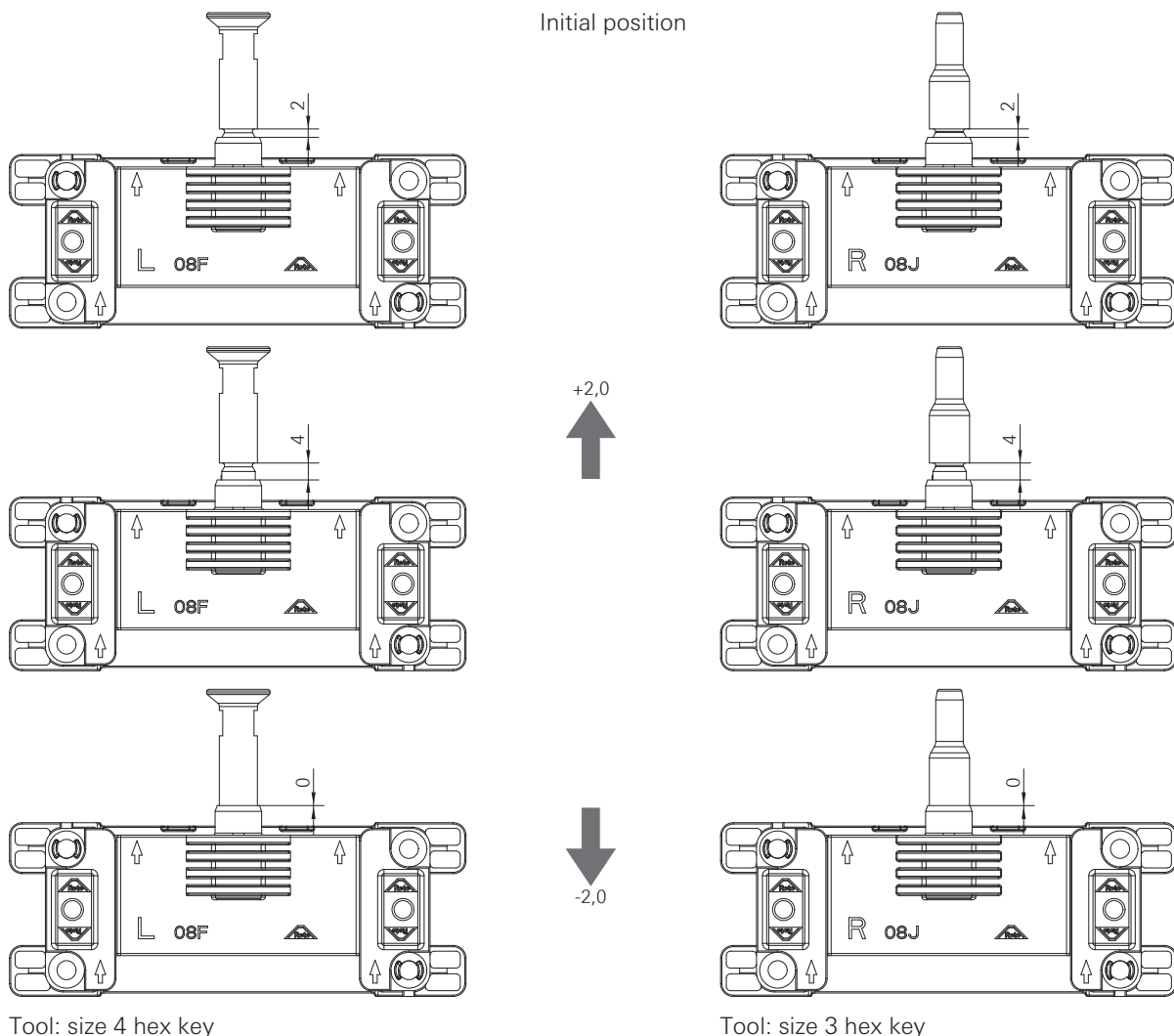
1. Check the combination of centre closer, adjustable, and mullion locking cam, adjustable, or pin for anti-pushback function, adjustable. The centre closer, adjustable has a higher flange. The locking cam and pin have an internal thread in the thread area → *from page 187*.



INFO

Roto hardware components may only be adjusted by authorised qualified personnel.

Gasket compression adjustment



12 Operation

12.1 Operating information

The windows and balcony doors are operated using a handle.

The following symbols illustrate the different handle positions and the resultant sash positions of the windows and balcony doors.

12.1.1 Roto Patio Inowa



ATTENTION

Risk of being accidentally locked out.

If the sash is in the sliding position and closes, the sash can engage and then be impossible to reopen from the outside.

- ▶ Secure the sash against accidentally engaging when in the sliding position.
- ▶ Ensure that access is possible if necessary.

Handle position	Sash position	Meaning
		Sash in closed position.
		Sash in open sliding position.
		Sash in closed sliding position.

12.2 Fault assistance

Fault	Cause	Corrective action	To be carried out by
Handle is difficult to turn.	Frame components have not been greased.	Grease the frame components.	□
	Handle is damaged.	Replace the handle.	■
	Handle screwed into place too tightly.	Undo the screw fixing slightly.	■
	Sash components with slanting screws.	Screw the sash components in straight.	■
	Sash components are damaged.	Replace the sash components.	■
	Incorrect striker positions.	Adapt the striker positions.	■
Handle cannot be turned 180°.	Sash components hinged or installed incorrectly.	Check the setting in the turn position (potentially re-hang – start from the T&T espagnolette).	■
		Check the connecting rod and replace if necessary.	
Locking cams brush against the striker.	Sash components hinged or installed incorrectly.	Check the setting in the turn position (potentially re-hang – start from the T&T espagnolette).	■
	Incorrect striker positions.	Adapt the striker positions.	■

□ = May be carried out by a specialist company or the end user

■ = **Must** be carried out by a specialist company



13 Maintenance



CAUTION

Performing maintenance work incorrectly can lead to injuries.

Performing maintenance incorrectly can lead to injuries.

- ▶ Ensure that there is sufficient space for installation before starting work.
- ▶ Ensure that the installation site is clean and tidy.
- ▶ Always have hardware adjustment and replacement work performed by a specialist company.
- ▶ Secure the sash against unintentionally opening or closing.
- ▶ Do not unhinge the sash for maintenance.



ATTENTION

Incorrect or improper testing may cause property damage.

Incorrect or improper testing of the hardware may cause the element to malfunction.

- ▶ Have the hardware checked by a specialist company when installed.
- ▶ If defects need to be remedied, have the element unhinged and remounted by a specialist company.



INFO

The manufacturer must draw the attention of builders and end consumers to these maintenance instructions.

Roto Frank Fenster- und Türtechnologie GmbH recommends the manufacturer conclude a maintenance agreement with their end users.

No legal claims can be derived from the following recommendations; their application is to be based on the specific individual case.

	Responsibility	
Maintenance interval	☐	→ from page 251
Cleaning		→ from page 252
Clean hardware	☐	
Care		→ from page 252
Lubricate movable parts	☐	
Lubricate locking points	☐	
Performance test		
Check that hardware components are fitted securely	☐	
Inspect hardware components for wear	☐	
Check that movable parts work properly	☐	
Check that locking points work properly	☐	
Check ease of movement	■	
Repair		→ from page 254
Retighten screws	■	
Replace damaged components	■	

☐ = May be carried out by a specialist company or the end user

■ = **Must** be carried out by a specialist company

13.1 Maintenance intervals



ATTENTION

Failure to adhere to maintenance intervals may cause property damage.

The maintenance interval for all tasks relating to the hardware components is **annually** at the least. In hospitals, schools and hotels, the maintenance interval is **six-monthly**.

Regular maintenance is necessary in order to maintain the proper and smooth-running operation of the hardware and to prevent premature wear or even defects.

- ▶ Determine and adhere to the appropriate maintenance interval in accordance with the ambient conditions.

13.2 Cleaning



ATTENTION

Using incorrect cleaning agents and sealing compounds may cause property damage.

Cleaning agents and sealing compounds may damage the surfaces of components and gaskets.

- ▶ Do not use aggressive or flammable liquids, acidic cleaners or abrasive cleaners.
- ▶ Only use mild, pH-neutral cleaning agents that have been diluted.
- ▶ Apply a thin protective film to the components, for example using a cloth soaked in oil.
- ▶ Avoid aggressive vapours (e.g. produced by formic acid, acetic acid, ammonia, amine compounds, ammonia compounds, aldehyde, carbolic acid, chlorine, tannic acid) around the element.
- ▶ Do not use any acetic acid-crosslinking or acid-crosslinking sealing compounds or those with the aforementioned constituents as both direct contact with the sealing compound and its fumes can corrode the surface of the components.

Cleaning the hardware

- ▶ Clean deposits and contaminants off the hardware using a soft cloth.
- ▶ Lubricate movable parts and locking points after cleaning. → 13.3 "Care" from page 252
- ▶ Apply a thin protective film to the hardware, for example using a cloth soaked in oil.

13.3 Care



ATTENTION

Using incorrect lubricants may cause property damage.

Substandard lubricants can prevent the hardware from working properly.

- ▶ Use high-quality lubricants.
- ▶ Only use resin-free and acid-free lubricants.
- ▶ Use appropriate lubricant in more challenging climatic conditions. Note the manufacturer specifications.



ATTENTION

Cleaning agents and lubricants may pollute the environment.

Leaking or excess cleaning agents and lubricants may pollute the environment.

- ▶ Remove any leaking or excess cleaning agents and lubricants.
- ▶ Dispose of cleaning agents and lubricants separately and properly.
- ▶ Observe the applicable directives and national laws.

Ease of movement can be improved by lubricating or adjusting the hardware. All functional hardware components must be lubricated on a regular basis.

Recommended lubricants

- Roto NX / NT grease

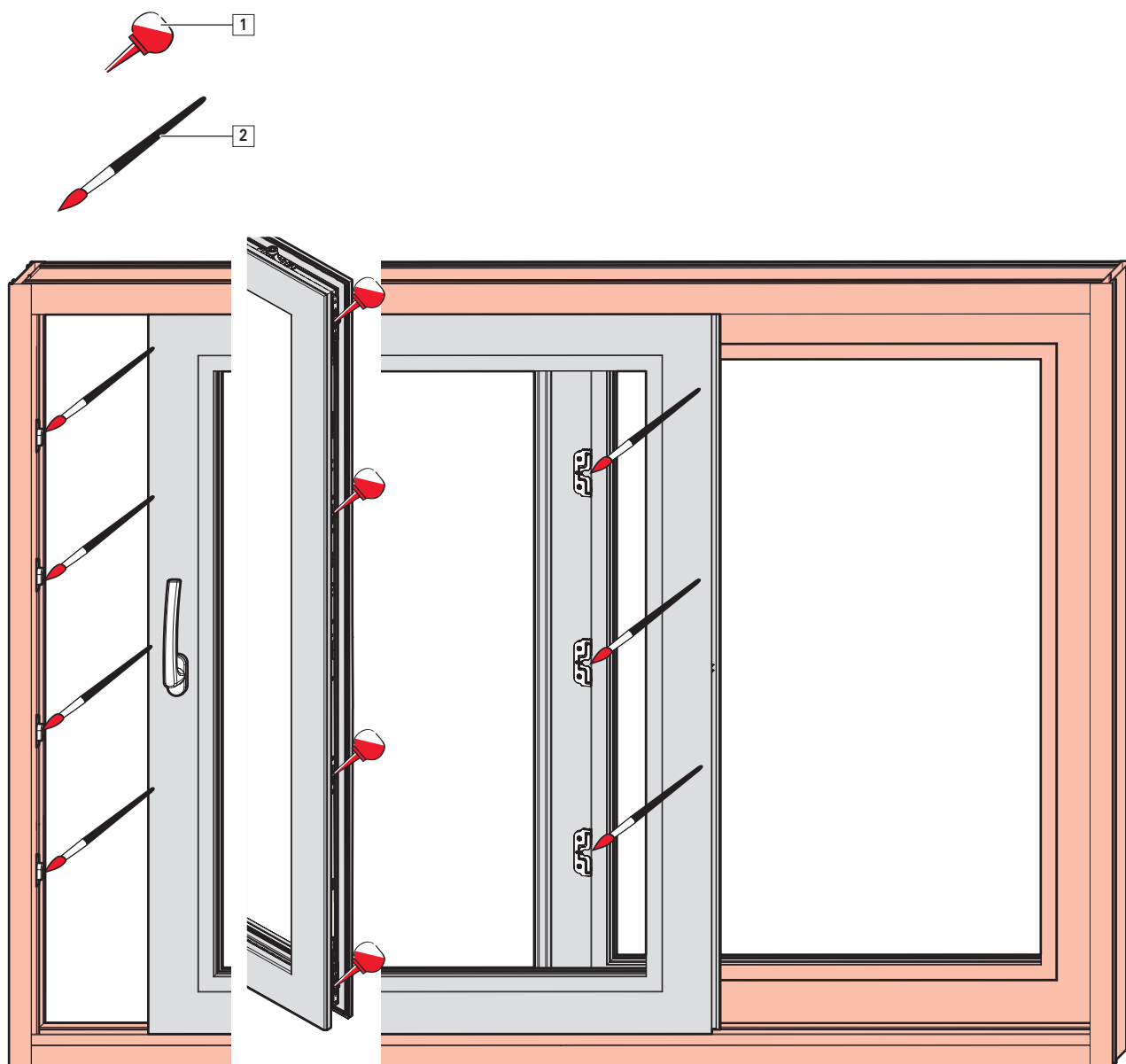


INFO

The figure displays the positioning of potential lubrication points. The figure does not necessarily match the installed hardware. The quantity of lubrication points varies depending on the size and design of the element.



13.3.1 Roto Patio Inowa



[1] Lubricant

[2] Grease

13.4 Performance test



DANGER

Risk of death caused a defective roller unit / damaged roller track!

A defective roller unit (which can be identified from scraping noises when moving the sash) or a damaged roller track may cause the sash to fall out.

1. If the sash is stiff or does not slide evenly, have it inspected by a specialist company.
2. If the roller track is visibly damaged, have the elements inspected by a specialist company.
3. If necessary, have defective / damaged components replaced.



WARNING

Improper repair work may pose a risk of death!

Improper maintenance may prevent the element from working properly and make it less safe to use.

- ▶ Always have repairs performed by a specialist company.

Check for proper operation:

- ▶ Inspect hardware components for damage, deformation and a secure fit.
- ▶ Check that the elements run smoothly by opening and closing them.
- ▶ Check the element gaskets for elasticity and fit.
- ▶ Check closed elements to ensure that they are leakproof.
- ▶ Locking and unlocking torque max. 10 Nm. The check can be performed using a torque wrench.

Have malfunctions remedied by a specialist company.

13.5 Repair



WARNING

Improper repair work may pose a risk of death!

Improper maintenance may prevent the element from working properly and make it less safe to use.

- ▶ Always have repairs performed by a specialist company.



ATTENTION

Improper screw fixings may cause property damage.

Loose or faulty screws can prevent the hardware from working properly.

- ▶ Check that the individual screws are secure and seated correctly.
- ▶ Tighten or replace loose or faulty screws.
- ▶ Use only the suggested screws.

Repair work includes replacing and repairing components and is only necessary if components have become damaged after wear or as a result of external circumstances. The hardware must be secured reliably in order to ensure that the element works properly and is safe to use.

The following tasks must only be performed by a specialist company:

- All adjustment work on the hardware,
- Replacing hardware or hardware components,
- Installing and removing windows, doors or balcony doors

The specialist company must observe the following:

- Perform the necessary repair work properly, according to generally recognised engineering practice and in accordance with the applicable regulations.
- Do not perform makeshift repairs on worn or damaged components.
- Only use original or approved spare parts for repairs.



14 Dismantling



WARNING

Improper dismantling may pose a risk of death!

The sash may fall during dismantling.

- ▶ Secure the sash to prevent it from falling, e.g. by using two people.
- ▶ Always have dismantling work performed by a specialist company.



CAUTION

Physical strain may cause injury and damage to health.

Carrying and lifting heavy loads for extended periods leads to physical injury in the long term.

- ▶ When carrying or lifting loads, maintain an ergonomically correct posture. The maximum permissible load is 25 kg for men and 10 kg for women.



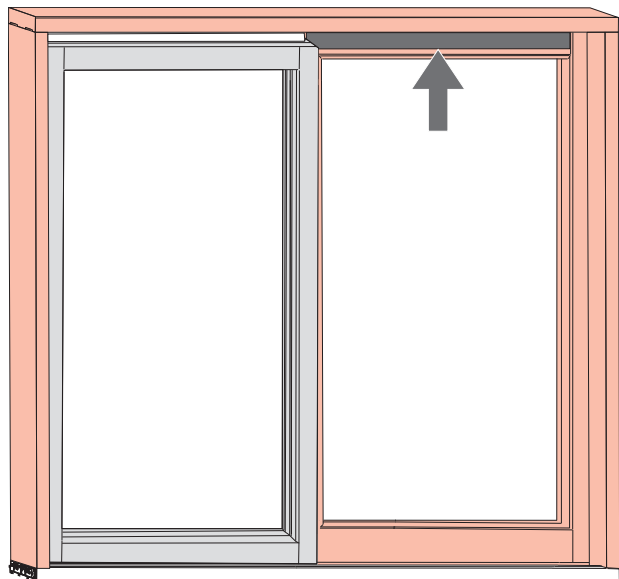
INFO

Unless otherwise stated, dismantling is performed in reverse order to installation.

14.1 Unhinging the sash

Version with split operator track

1. Remove the operator track in the fixed glazing area.



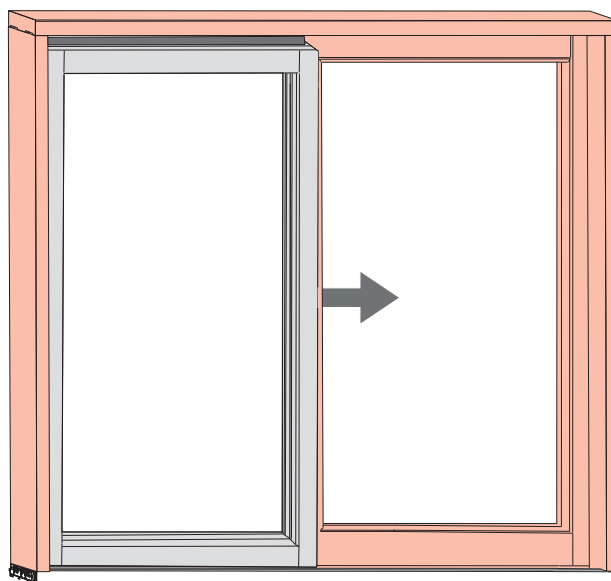
2. Move the handle to the sliding position.



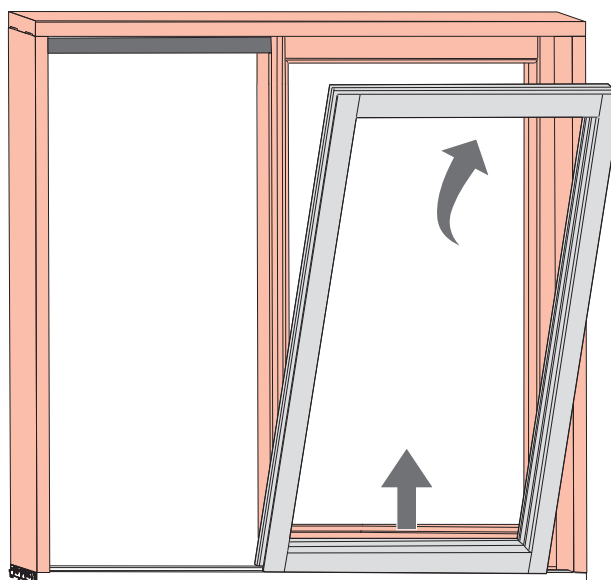
Dismantling

Unhinging the sash

3. Push the sash onto the roller track in front of the fixed glazing area in a controlled manner until the control units are exposed.



4. Remove the sash parallel to the frame.



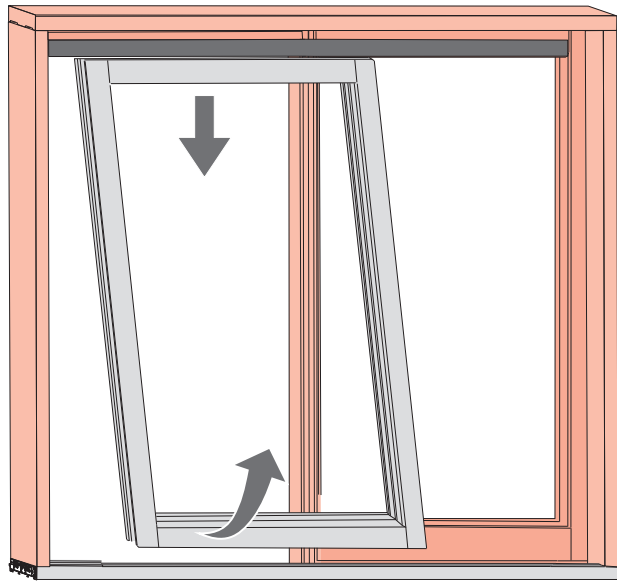
Version with continuous operator track

1. Move the handle to the sliding position.





2. Lift the sash and tilt it outwards at the bottom.
Lower the sash in a controlled manner until the control units are exposed.



3. Remove the sash parallel to the frame.

14.2 Hardware components

Removing hardware components

1. Undo all screw connections.
2. Remove the hardware components.
3. Dispose of the hardware components properly.

15 Transport

15.1 Transporting elements and hardware



DANGER

Improper transport poses a risk of death!

Improper procedures for transporting, loading or unloading elements may cause serious injuries and glass breakage as a result of the elements swinging open, falling or becoming overloaded.

- ▶ Note the applicable accident prevention regulations.
- ▶ Note force application points and reaction forces.
- ▶ Prevent the sash from opening uncontrollably.
- ▶ Avoid jerky movements.
- ▶ Use suitable transportation means and protective devices.
- ▶ Watch out for protruding components.
- ▶ Transport heavy loads with two people and use suitable transportation means (such as an industrial truck).



CAUTION

Trapped limbs may result in injuries.

The transported goods can skid, open, close or fall during transportation tasks. This can result in limbs being trapped and seriously injured.

- ▶ Never reach near the scissor stays.
- ▶ Close the sash after installation and secure it in place for transport.
- ▶ Wear safety gloves and protective footwear.



CAUTION

Physical strain may cause injury and damage to health.

Carrying and lifting heavy loads for extended periods leads to physical injury in the long term.

- ▶ When carrying or lifting loads, maintain an ergonomically correct posture. The maximum permissible load is 25 kg for men and 10 kg for women.

Hardware is supplied to the specialist company as complete sets. The components are packaged accordingly for each scope of delivery. The instructions for safely transporting the hardware are described below.

Observe the following basic instructions when transporting hardware:

- ▶ Transport larger scopes of delivery using appropriate transportation means (such as industrial trucks).
- ▶ Note the transport weight in order to select appropriate transportation means.
- ▶ Ensure that the transport process is careful and appropriate for the material and that components are protected against dirt during transport.
- ▶ Immediately check the delivery for completeness and transport damage on receipt.



INFO

Submit a complaint about any defects as soon as they are identified. Claims for damages may only be made within the reclamation period.

Use the following transportation means for support when transporting, loading and unloading larger scopes of delivery:



- Industrial trucks, e.g. forklifts, telescopic handlers, pallet trucks
- Lifting equipment, e.g. transport nets, carry straps, round slings
- Protective devices, e.g. edge protection, spacer blocks



INFO

Industrial trucks and lifting devices may only be operated by qualified persons.



INFO

Lifting equipment and protective devices may only be used if they are in full working order.

15.2 Storing the hardware

Store all hardware components as follows until they are installed:

- Dry and protected
- On a level surface
- Protected against sunlight

16 Disposal



ATTENTION

Incorrect disposal may pollute the environment.

Pieces of hardware are raw materials.

- ▶ Dispose of hardware for environmentally friendly material re-utilisation as mixed scrap.

16.1 Disposing of packaging

The hardware is supplied as complete sets together with the packaging. Once unpacked, the installation company or builder is responsible for disposing of the packaging properly. The packaging materials are produced in accordance with current environmental protection standards. The materials can be recycled separately.

Follow the basic instructions below for the proper disposal of packaging:

- ▶ Do not dispose of packaging in household waste.
- ▶ Hand over packaging at local waste collection points or recycling centres.
- ▶ Observe the national regulations on the disposal of recyclable materials.
- ▶ Contact the local authorities if necessary.

16.2 Disposing of hardware

Once the hardware is finished with, the end user or builder is responsible for properly disposing of the windows, doors or balcony doors and the hardware, including any accessories. Hardware is produced in accordance with current environmental protection standards. The materials can be recycled separately.

Follow the basic instructions below for the proper disposal of hardware:

- ▶ Observe the information and specifications for disposal contained in the other applicable documents.
- ▶ Separate hardware components from windows, doors or balcony doors.
- ▶ Do not dispose of hardware in household waste.
- ▶ Hand over hardware at local waste collection points or recycling centres.
- ▶ Observe the national regulations on the disposal of recyclable materials.
- ▶ Contact the local authorities if necessary.



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